

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0112950

Owner: Specialty Granules Inc.
Address: 13424 Pennsylvania Avenue Suite 303
Hagerstown, MD 21742

Continuing Authority:
Address: Specialty Granules
#1 Hillcrest Drive
Annapolis, MO 63620

Facility Name: Specialty Granules
Facility Address: #1 Hillcrest Drive
Annapolis, MO 63620

Legal Description: See page 2
UTM Coordinates: See page 2

Receiving Stream: See page 2
First Classified Stream and ID: See page 2
USGS Basin & Sub-watershed No.: See page 2

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

See page 2

This permit authorizes only discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Sections 640.013, 621.250, and 644.051.6 of the Law.

January 1, 2013
Effective Date

March 2, 2016
Modification Date

Sara Parker Pauley, Director, Department of Natural Resources

December 31, 2016
Expiration Date

John Madros, Director, Water Protection Program

FACILITY DESCRIPTION (continued)

Outfall #001- Stone Crushing-Washing – SIC #3299, 1423, 1429, 1499

Stormwater and process water runoff discharge point from a quarry area and other plant areas. Discharges from this point are dependent upon flow from stormwater and the quarry.

Design Flow: 307,400 gallons per day.

Legal Description: NE ¼, Sec 22, T31N, R 3E, Iron County

UTM Coordinates: X = 703658, Y = 4136847

Receiving Stream: Unnamed Tributary to Big Creek

First Classified Stream and ID: Big Creek (P) (2916) (303d) (2010)

USGS Basin & Sub-watershed No.: (08020202 – 0302)

Outfall #002- Stone Crushing-Washing – SIC #3299, 1423, 1429, 1499

This outfall is the Rock Dike emergency overflow located below the process water settling pond and quarry.

Design Flow: dependent upon precipitation

Legal Description: SE ¼, NW ¼, Sec 23, T31N, R3E, Iron County

UTM Coordinates: X = 704714, Y = 4137075

Receiving Stream: Unnamed Tributary to Big Creek

First Classified Stream and ID: Big Creek (P) (2916) (303d) (2010)

USGS Basin & Sub-watershed No.: (08020202 – 0302)

Outfall #003- Stone Crushing-Washing – SIC #3299, 1423, 1429, 1499

This outfall is the west catchment pond emergency overflow located to the west of the West Peak Quarry.

Design Flow: dependent upon precipitation

Legal Description: SW ¼, Sec 22, T31N, R3E, Iron County

UTM Coordinates: X = 702730, Y = 4136274

Receiving Stream: Unnamed Tributary to Big Creek

First Classified Stream and ID: 8-20-13 MUDD V1.0 (C) (3960) (locally known as tributary to Big Creek (P) (2916))

USGS Basin & Sub-watershed No.: (08020202 – 0302)

Outfall #004- Stone Crushing-Washing – SIC #3299, 1423, 1429, 1499

This outfall is the Rock Dike emergency overflow located below the process water settling pond and quarry.

Design Flow: dependent upon precipitation

Legal Description: SW ¼, Sec 22, T31N, R3E, Iron County

UTM Coordinates: X = 702752, Y = 4135895

Receiving Stream: Unnamed Tributary to Big Creek

First Classified Stream and ID: 8-20-13 MUDD V1.0 (C) (3960) (locally known as tributary to Big Creek (P) (2916))

USGS Basin & Sub-watershed No.: (08020202 – 0302)

Outfall #005- Stone Crushing-Washing – SIC #3299, 1423, 1429, 1499

This outfall is for future stormwater retention pond being constructed in late 2015 or early 2016. Similar activity will occur in the drainage area to this pond as the activity in the drainage area to Outfalls #003 and #004.

Design Flow: dependent upon precipitation

Legal Description: NE ¼, NE ¼, Sec 27, T31N, R3E, Iron County

UTM Coordinates: X = 703982, Y = 4135749

Receiving Stream: Unnamed Tributary to Big Creek

First Classified Stream and ID: 8-20-13 MUDD V1.0 (C) (3960) (locally known as tributary to Big Creek (P) (2916))

USGS Basin & Sub-watershed No.: (08020202 – 0302)

Outfall #006- Stone Crushing-Washing – SIC #3299, 1423, 1429, 1499

This outfall is a stormwater retention pond being constructed in late 2015 or early 2016 on the north portion of the plant. Similar activity will occur in the drainage area to this pond as the activity in the drainage area to Outfalls #002.

Design Flow: dependent upon precipitation

Legal Description: NE ¼, Sec 22, T31N, R3E, Iron County

UTM Coordinates: X = 704025, Y = 4136970

Receiving Stream: Big Creek (P) (2916)

First Classified Stream and ID: Big Creek (P) (2916)

USGS Basin & Sub-watershed No.: (08020202 – 0302)

In-stream monitoring point BC-1.

This in-stream monitoring point is located along Big Creek and is monitored for total suspended solids before the facility's confluence on Big Creek (BC-1).

Legal Description: NE ¼, Sec 22, T31N, R3E, Iron County

UTM Coordinates: X = 703311, Y = 4136933

Receiving Stream: Unnamed Tributary to Big Creek

First Classified Stream and ID: Big Creek (P) (2916) (303d) (2010)

USGS Basin & Sub-watershed No.: (08020202 – 0302)

In-stream monitoring point BC-2.

This in-stream monitoring point is located along Big Creek and is monitored for total suspended after the confluence of the sewage lagoon (BC-2).

Legal Description: SW ¼, NW ¼, Sec 23, T31N, R3E, Iron County

UTM Coordinates: X = 704137, Y = 4136961

Receiving Stream: Unnamed Tributary to Big Creek

First Classified Stream and ID: Big Creek (P) (2916) (303d) (2010)

USGS Basin & Sub-watershed No.: (08020202 – 0302)

In-stream monitoring point BC-3.

This in-stream monitoring point is located along Big Creek and is monitored for total suspended solids after the percolation of Specialty Granules' settling basin (BC-3).

Legal Description: SW ¼, NE ¼, Sec 23, T31N, R3E, Iron County

UTM Coordinates: X = 705108, Y = 4136942

Receiving Stream: Unnamed Tributary to Big Creek

First Classified Stream and ID: Big Creek (P) (2916) (303d) (2010)

USGS Basin & Sub-watershed No.: (08020202 – 0302)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #001						
Precipitation	Inches	*		*	once/day	24 hr. total
Flow	MGD	*		*	once/quarter***	24 hr. estimate
Oil & Grease	mg/L	15		10	once/quarter***	grab
Total Suspended Solids	mg/L	80		60	once/quarter***	grab
pH	SU	**		**	once/quarter***	grab

MONITORING REPORTS SHALL BE SUBMITTED **QUARTERLY**; THE FIRST REPORT IS DUE **APRIL 28, 2013**. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #002 & #006						
Flow	MGD	*		*	once/discharge	grab
Total Suspended Solids	mg/L	*		*	once/discharge	grab
Oil & Grease	mg/L	15		10	once/discharge	grab
pH	SU	**		**	once/discharge	grab

MONITORING REPORTS SHALL BE SUBMITTED **QUARTERLY** THE NEXT REPORT IS DUE **JULY 28, 2016**. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS						
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #003, #004, & #005						
Precipitation	Inches	*			once/day	total measured
Flow	MGD	*			once/discharge	24 hr. estimate
Oil & Grease	mg/L	*			once/discharge	grab
Total Suspended Solids	mg/L	*			once/discharge	grab
pH	SU	**			once/discharge	grab
MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY ; THE FIRST REPORT IS DUE APRIL 28, 2015 . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS						
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Stream Monitoring Point BC-1</u>						
Total Suspended Solids	mg/L	*		*	once/quarter***	grab
<u>Stream Monitoring Point BC-2</u>						
Total Suspended Solids	mg/L	*		*	once/quarter***	grab
<u>Stream Monitoring Point BC-3</u>						
Total Suspended Solids	mg/L	*		*	once/quarter***	grab
MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY ; THE FIRST REPORT IS DUE APRIL 28, 2013 .						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.
- *** See table below for quarterly sampling.

Minimum Sampling Requirements			
Quarter	Months	Effluent Parameters	Report is Due
First	January, February, March	Sample at least once during any month of the quarter	April 28 th
Second	April, May, June	Sample at least once during any month of the quarter	July 28th
Third	July, August, September	Sample at least once during any month of the quarter	October 28th
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28th

B. STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached Part I standard conditions dated August 1, 2014, and hereby incorporated as though fully set forth herein.

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

2. All outfalls must be clearly marked in the field.
3. Permittee will cease discharge by connection to a facility with an area-wide management plan per 10 CSR 20-6.010(3)(B) within 90 days of notice of its availability.
4. Water Quality Standards
 - (a) Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
 - (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses
 - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses
 - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (5) There shall be no significant human health hazard from incidental contact with the water;
 - (6) There shall be no acute toxicity to livestock or wildlife watering;
 - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

5. Changes in Discharges of Toxic Pollutant

In addition to the reporting requirements under §122.41(1), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

- (a) That an activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile;
 - (3) Five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol;
 - (4) One milligram per liter (1 mg/L) for antimony;
 - (5) Five (5) times the maximum concentration value reported for the pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
 - (6) The notification level established by the department in accordance with 40 CFR 122.44(f).

C. SPECIAL CONDITIONS (continued)

- (b) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
 (1) Five hundred micrograms per liter (500 µg/l);
 (2) One milligram per liter (1 mg/l) for antimony;
 (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with §122.21(g)(7).
 (4) The level established by the Director in accordance with §122.44(f).

- 6. Report as no-discharge when a discharge does not occur during the report period.
- 7. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (644.055 RSMo).
- 8. The permittee shall develop and implement a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must be prepared within 30 days and implemented within 90 days of permit issuance. The SWPPP must be kept on-site and should not be sent to DNR unless specifically requested. The SWPPP must be reviewed and updated, if needed, every five (5) years or as site conditions change. The permittee shall select, install, use, operate, and maintain the Best Management Practices prescribed in the SWPPP in accordance with the concepts and methods described in the following document:

Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators, (Document number EPA 833-B-09-002) published by the United States Environmental Protection Agency (USEPA) in February 2009.

The SWPPP must include the following:

- (a) A listing of specific Best Management Practices (BMPs) and a narrative explaining how BMPs will be implemented to control and minimize the amount of potential contaminants that may enter storm water. Minimum BMPs are listed in SPECIAL CONDITIONS #9 below.
 - (b) The SWPPP must include a schedule for twice per month site inspections and brief written reports. The inspections must include observation and evaluation of BMP effectiveness. Deficiencies must be corrected within seven (7) days and the actions taken to correct the deficiencies shall be included with the written report, including photographs. Any corrective measure that necessitates major construction may also need a construction permit. Inspection reports must be kept on site with the SWPPP and maintained for a period of five (5) years. These must be made available to DNR personnel upon request.
 - (c) A provision for designating an individual to be responsible for environmental matters.
 - (d) A provision for providing training to all personnel involved in material handling and storage, and housekeeping of maintenance and cleaning areas. Proof of training shall be submitted on request of DNR.
- 9. This permit stipulates pollutant benchmarks applicable to your discharge. The benchmarks do not constitute direct numeric effluent limitations; therefore, a benchmark exceedance alone is not a permit violation. Benchmark monitoring and visual inspections shall be used to determine the overall effectiveness of SWPPP and to assist you in knowing when additional corrective action may be necessary to protect water quality. If a sample exceeds a benchmark concentration you must review your SWPPP and your BMPs to determine what improvements or additional controls are needed to reduce that pollutant in your stormwater discharge(s).

Outfall #003, #004, & #005	
Parameter	Benchmark
Total Suspended Solids	100 mg/L
Oil & Grease	15 mg/L

Any time a benchmark exceedance occurs a Corrective Action Report (CAR) must be completed. A CAR is a document that records the efforts undertaken by the facility to improve BMPs to meet benchmarks in future samples. CARs must be retained with the SWPPP and available to the department upon request. If the efforts taken by the facility are not sufficient and subsequent exceedances of a benchmark occur, the facility must contact the department if a benchmark value cannot be achieved. Failure to take corrective action to address a benchmark exceedance and failure to make tangible progress towards achieving the benchmarks is a permit violation.

- 10. Permittee shall adhere to the following minimum Best Management Practices:
 - (a) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehouse activities and thereby prevent the contamination of storm water from these substances.
 - (b) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.

C. SPECIAL CONDITIONS (continued)

- (c) Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so that these materials are not exposed to storm water or provide other prescribed BMP's such as plastic lids and/or portable spill pans to prevent the commingling of storm water with container contents. Commingled water may not be discharged under this permit. Provide spill prevention control, and/or management sufficient to prevent any spills of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater.
 - (d) Provide good housekeeping practices on the site to keep trash from entry into waters of the state.
 - (e) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property. This could include the use of straw bales, silt fences, or sediment basins, if needed, to comply with effluent limits.
11. The purpose of the SWPPP and the BMPs listed herein is the prevention of pollution of waters of the state. A deficiency of a BMP means it was not effective in preventing pollution [10 CSR 20-2.010(56)] of waters of the state, and corrective actions means the facility took steps to eliminate the deficiency.
12. All spills must be **cleaned up** within 24 hours or as soon as possible, and a written report of the incident supplied with the facility's Discharge Monitoring Report. The following spills must be **reported** to the Department at the earliest practicable moment, but no greater than 24 hours after the spill occurs:
- (a) Any spill, of any material, that leaves the property of the facility;
 - (b) Any spill, of any material outside of secondary containment and exposed to precipitation, greater than 25 gallons or equivalent volume of solid material.

The Department may require the submittal of a written report detailing measures taken to clean up the spill within 5 days of the spill. Whether the written report is submitted with the Discharge Monitoring Report or required to be submitted within 5 days, it must include the type of material spilled, volume, date of spill, date clean-up completed, clean-up method, and final disposal method. If the spill occurs outside of normal business hours, or if the permit holder cannot reach regional office staff for any reason, the permit holder is instructed to report the spill to the Department's 24 hour Environmental Emergency Response hotline at (573) 634-2436. Leaving a message on a Department staff member voice-mail does not satisfy this reporting requirement. These reporting requirements apply whether or not the spill results in chemicals or materials leaving the permitted property or reaching waters of the state. This requirement is in addition to the Noncompliance Reporting requirement found in Standard Conditions Part I.

Federal Regulations (CERCLA) requires reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

Missouri Department of Natural Resources
STATEMENT OF BASIS
FOR THE PURPOSE OF MODIFICATION
OF
MO-0112950
SPECIALTY GRANULES

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of storm water from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)2.] a Factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (operating permit) listed below.

A Factsheet is not an enforceable part of an operating permit.

This Factsheet is for an Industrial Facility.

Part I – Facility Information

Facility Type: Industrial
Facility SIC Code(s): 3299, 1423, 1429, 1499

Facility Description:

Formerly ISP Minerals, Specialty Granules Inc. involves surface quarry operation and manufactures roofing granules. The facility consists of four outfalls and three in-stream monitoring points. Outfall #001 is stormwater and process water runoff from a quarry area and other plant areas. This outfall's flow is dependent on quarry stormwater pumping and other stormwater flow. Outfall #002 and #004 are rock dike emergency overflows from process water settling pond and quarry. Outfall #003 is the west catchment pond emergency overflow located to the west of the West Peak Quarry. Outfall #005 is for future expansion of the mining site. **Outfall #006 is for additional erosion and sediment control measures for plant support areas.** The three in-stream monitoring points, BC-1, BC-2 and BC-3, were chosen to monitor for total suspended solids before the facility's confluence on Big Creek, point BC-1, point BC-2 is after confluence of the sewage lagoon (City of Annapolis, MO-0023621), and point BC-3 is after the percolation of ISP's settling basin.

Part II – Modification Rationale

This operating permit is hereby modified to reflect the addition of a sixth outfall. This outfall is located on the north part of the property, just west of instream monitoring point BC-2. This outfall was requested in anticipation of a future stormwater retention pond planned to be constructed in late 2015 or early 2016. This stormwater retention pond will collect stormwater from current plant support areas. Activities anticipated in the drainage area to this new outfall includes existing stockpiles of excavated rock as well as presence of heavy mobile equipment.

Due to the nature of the activity, conditions and effluent limitations similar those applied to Outfall #002 will be applied to this new Outfall #006. This outfall will discharge directly to Big Creek. However, due to the similarity in activity occurring, the permit will require the same parameter be sampled for Outfall #006 as are sampled for #002. All limits will be evaluated during the following permit renewal.

For ease of reading, the effluent limitations tables for Outfalls #002 and #006 will be combined into a single table. The permit will also contain an additional monitoring requirement for flow at Outfalls #002 and #006. It is unclear why this parameter was left out of previous permits. However, flow monitoring is a federal requirement that must be included in all discharge permits.

In accordance with comments received from the permittee, the UTM coordinates for several outfalls was updated in the permit and the factsheet.

No other changes were made at this time.

OUTFALL(S) TABLE:

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	EFFLUENT TYPE
006	dependent upon precipitation	Best Management Practices	Industrial stormwater

Part III – Receiving Stream Information

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:

As per Missouri’s Effluent Regulations [10 CSR 20-7.015], the waters of the state are divided into the below listed seven (7) categories. Each category lists effluent limitations for specific parameters, which are presented in each outfall’s Effluent Limitation Table and further discussed in the Derivation & Discussion of Limits section.

As per Missouri’s Stormwater Regulations [10 CSR 20.6.200(6)(B)2.], the department shall establish effluent limits as necessary to protect waters of the state. Effluent limitations for stormwater are established using best professional judgment based on the category and designated uses of the receiving stream.

- Missouri or Mississippi River:
- Lake or Reservoir:
- Losing:
- Metropolitan No-Discharge:
- Special Stream:
- Subsurface Water:
- All Other Waters:

10 CSR 20-7.031 Missouri Water Quality Standards, the Department defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and 1st classified receiving stream’s beneficial water uses to be maintained are located in the Receiving Stream Table located below in accordance with [10 CSR 20-7.031(3)].

RECEIVING STREAM(S) TABLE:

OUTFALL	WATERBODY NAME	CLASS	WBID	DESIGNATED USES	DISTANCE TO CLASSIFIED SEGMENT	12-DIGIT HUC
#006	Big Creek	C	3960	AQL, CLF, HHP, IRR, LWW, SCR, WBC-A	0.0	08020202-0302

AQL= Protection of Warm Water Aquatic Life and Human Health-Fish Consumption; C= Streams may cease flow in dry periods; CDF= Cold Water Fishery; CLF= Cool Water Fishery; DWS= Drinking Water Supply; E= Ephemeral stream; GRW = Groundwater; HHP= Human Health Protection; HUC= Hydrologic Unit Code; IND= Industrial; IRR=Irrigation; LWW= Livestock & Wildlife Watering; P= Permanent; SCR= Secondary Contact Recreation; U= Unclassified; W= Wetland; WBC= Whole Body Contact Recreation; WBID= Water Body Identification Number

RECEIVING STREAM(S) LOW-FLOW VALUES:

OUTFALL	RECEIVING STREAM	LOW-FLOW VALUES (CFS)		
		1Q10	7Q10	30Q10
#006	Big Creek (P)	0.1	0.1	1.0

MIXING CONSIDERATIONS TABLE:

ZONE OF INITIAL DILUTION (CFS) (ACUTE) [10 CSR 20-7.031(5)(A)4.B.(II)(b)]			MIXING ZONE (CFS) (CHRONIC) [10 CSR 20-7.031(5)(A)4.B.(II)(a)]		
1Q10	7Q10	30Q10	1Q10	7Q10	30Q10
0.025	0.025	0.25	0.0025	0.0025	0.25

Part IV – Effluent Limits Determination

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

Due to the nature of the discharges from these outfalls being stormwater, only a maximum daily limit (MDL) or monitoring requirement will be implemented for many of the parameters listed below. Stormwater events are acute occurrences that result in the greatest concentrations of pollutants being discharged in the first part of the runoff. This first flush can best be represented by a grab sample within the first hours of runoff. Additionally, stormwater events are highly variable. Recording an average monthly limit (AML) is not representative of the nature of these discharges. Many of these parameters that require just a MDL monitoring only requirement will now have a benchmark value associated with that monitoring only requirement. These benchmark values will be listed under the individual discussion and derivation of each parameter containing such a value.

BENCHMARKS

Benchmark concentrations are **not** effluent limitations; benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data is used to determine the overall effectiveness of control measures and to assist the permittee in knowing when additional corrective action(s) may be necessary to comply with the technology based effluent limitations (TBEL). Failure to take corrective action is a violation of the permit. Benchmark exceedance alone is not a permit violation.

The benchmarks listed in the derivation discussion below have been determined to be feasible, affordable and protective of water quality. These benchmark values are consistent with other stormwater permits including the Environmental Protection Agency’s (EPA) *Multi-Sector General Permit For Stormwater Discharges Associated With Industrial Activity* (MSGP). The facility will be required to monitor for all these parameters and if the benchmarks are exceeded at all in the following permit cycle, then the permit writer will use best professional judgment to determine if effluent limitations will be necessary to protect water quality.

Outfall #006 – Stormwater Outfalls

EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	Basis for Limits	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW (ALSO FOR OUTFALL #002)	GPD	1	*	-	-	YES	***
TSS	MG/L	6	**	-	-	YES	***
pH	SU	1	6.5-9.0	-	-	YES	***
OIL & GREASE (MG/L)	MG/L	6	**	-	-	YES	***

* - Monitoring requirement only
 ** - Monitoring with associated benchmark
 *** - Parameter not previously established in previous state operating permit.

Basis for Limitations Codes:

- | | |
|--|-----------------------------------|
| 1. State or Federal Regulation/Law | 5. Water Quality Model |
| 2. Water Quality Standard (includes RPA) | 6. Best Professional Judgment |
| 3. Water Quality Based Effluent Limits | 7. TMDL or Permit in lieu of TMDL |
| 4. Antidegradation Review/Policy | 8. WET Test Policy |

OUTFALL #006 – DERIVATION AND DISCUSSION OF LIMITS:

Flow. In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification. This parameter is also being applied to Outfall #002 per the same regulatory citation listed above.

Total Suspended Solids (TSS). Monitoring only with a benchmark value. There is no water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS that may indicate uncontrolled materials leaving the site. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at 100 mg/L. This value falls within the range of values implemented in other permits that have similar industrial activities and the EPA’s MSGP.

pH. 6.5-9.0 SU. Technology based effluent limitations of 6.0-9.0 SU [10 CSR 20-7.015] are not protective of the Water Quality Standard, which states that water contaminants shall not cause pH to be outside the range of 6.5-9.0 SU. No mixing zone is allowed due to the classification of the receiving stream, therefore the water quality standard must be met at the outfall.

Oil & Grease. Monitoring only with a benchmark value. Conventional pollutant, in accordance with 10 CSR 20-7.031 Table A effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum. The site contains machinery that may contain oils, lubricants and other petroleum products. Therefore, it is the permit writer's best professional judgment to add monitoring for this parameter. The benchmark value will be set at 15 mg/L.

MINIMUM SAMPLING AND REPORTING FREQUENCY REQUIREMENTS.

Outfall #006:

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow (Also for Outfall #002)	once/discharge	once/quarter
TSS	once/discharge	once/quarter
pH	once/discharge	once/quarter
Oil & Grease	once/discharge	once/quarter

Sampling Frequency Justification:

Sampling and Reporting Frequency was established using the current permit frequencies for the existing outfalls. The frequencies from similar outfalls were transferred to the new outfall.

SAMPLING TYPE JUSTIFICATION

Sampling Type was established using the current permit types for the existing outfalls. Grab samples are representative of the stormwater discharge.

Part V – Administrative Requirements

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit.

PUBLIC NOTICE:

The Department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing.

The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

- The Public Notice period for this operating permit began on January 8, 2016 and ended on February 8, 2016. No comments were received during the Public Notice period.

Date of Statement of Basis: December 9, 2015

Submitted by

Logan Cole, Environmental Specialist
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Missouri Department of Natural Resources
STATEMENT OF BASIS
FOR THE PURPOSE OF MODIFICATION
OF
MO-0112950
SPECIALTY GRANULES

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of storm water from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)2.] a Factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (operating permit) listed below.

A Factsheet is not an enforceable part of an operating permit.

This Factsheet is for an Industrial Facility.

Part I – Facility Information

Facility Type: Industrial
Facility SIC Code(s): 3299, 1423, 1429, 1499

Facility Description:

Formerly ISP Minerals, Specialty Granules Inc. involves surface quarry operation and manufactures roofing granules. The facility consists of four outfalls and three in-stream monitoring points. Outfall #001 is stormwater and process water runoff from a quarry area and other plant areas. This outfall's flow is dependent on quarry stormwater pumping and other stormwater flow. Outfall #002 and #004 are rock dike emergency overflows from process water settling pond and quarry. Outfall #003 is the west catchment pond emergency overflow located to the west of the West Peak Quarry. Outfall #005 is for future expansion of the mining site. The three in-stream monitoring points, BC-1, BC-2 and BC-3, were chosen to monitor for total suspended solids before the facility's confluence on Big Creek, point BC-1, point BC-2 is after confluence of the sewage lagoon (City of Annapolis, MO-0023621), and point BC-3 is after the percolation of ISP's settling basin.

Part II – Modification Rationale

This operating permit is hereby modified to reflect the addition of a fifth outfall. This outfall is located on the south part of the property. This outfall was requested in anticipation of a future stormwater retention pond planned to be constructed in late 2015 or early 2016. This stormwater retention pond will collect stormwater from future expansion of the surface mining operation. Activities anticipated in the drainage area to this new outfall include stockpiling of excavated overburden soils and rock as well as presence of heavy mobile equipment.

Due to the nature of the activity, conditions and effluent limitations similar those applied to Outfall #003 and #004 will be applied to this new Outfall #005.

Additionally, the unnamed tributary to Big Creek, which received flow from Outfalls #003 and #004, is now classified as EPA has approved the Department's new stream classifications. The stream is now classified as 8-20-13 MUDD V1.0 (C)(3960). This new classification does not have any impact on the effluent limitations or permitting requirements for those outfalls. The tributary that the new Outfall #005 discharges to is also classified under that same National Hydrologic Dataset.

No other changes were made at this time.

OUTFALL(S) TABLE:

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	EFFLUENT TYPE
005	dependent upon precipitation	Best Management Practices	Industrial stormwater

Part III – Receiving Stream Information

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:

As per Missouri’s Effluent Regulations [10 CSR 20-7.015], the waters of the state are divided into the below listed seven (7) categories. Each category lists effluent limitations for specific parameters, which are presented in each outfall’s Effluent Limitation Table and further discussed in the Derivation & Discussion of Limits section.

As per Missouri’s Stormwater Regulations [10 CSR 20.6.200(6)(B)2.], the department shall establish effluent limits as necessary to protect waters of the state. Effluent limitations for stormwater are established using best professional judgment based on the category and designated uses of the receiving stream.

- Missouri or Mississippi River:
- Lake or Reservoir:
- Losing:
- Metropolitan No-Discharge:
- Special Stream:
- Subsurface Water:
- All Other Waters:

10 CSR 20-7.031 Missouri Water Quality Standards, the Department defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and 1st classified receiving stream’s beneficial water uses to be maintained are located in the Receiving Stream Table located below in accordance with [10 CSR 20-7.031(3)].

RECEIVING STREAM(S) TABLE:

OUTFALL	WATERBODY NAME	CLASS	WBID	DESIGNATED USES	DISTANCE TO CLASSIFIED SEGMENT	12-DIGIT HUC
#005	Unnamed tributary to Big Creek	N/A	N/A	GEN	~ 0.35	08020202-0302
#005	8-20-13 MUDD V1.0	C	3960	AQL, HHP, IRR, LWV, SCR, WBC-B	N/A	

AQL= Protection of Warm Water Aquatic Life and Human Health-Fish Consumption; C= Streams may cease flow in dry periods; CDF= Cold Water Fishery; CLF= Cool Water Fishery; DWS= Drinking Water Supply; E= Ephemeral stream; GRW = Groundwater; HHP= Human Health Protection; HUC= Hydrologic Unit Code; IND= Industrial; IRR=Irrigation; LWV= Livestock & Wildlife Watering; P= Permanent; SCR= Secondary Contact Recreation; U= Unclassified; W= Wetland; WBC= Whole Body Contact Recreation; WBID= Water Body Identification Number

RECEIVING STREAM(S) LOW-FLOW VALUES:

OUTFALL	RECEIVING STREAM	LOW-FLOW VALUES (CFS)		
		1Q10	7Q10	30Q10
#005	Unnamed tributary to Big Creek	0.0	0.0	0.0

MIXING CONSIDERATIONS

Mixing Zone: Not Allowed [10 CSR 20-7.031(5)(A)4.B.(I)(a)].
Zone of Initial Dilution: Not Allowed [10 CSR 20-7.031(5)(A)4.B.(I)(b)].

Part IV – Effluent Limits Determination

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

Due to the nature of the discharges from these outfalls being stormwater, only a maximum daily limit (MDL) or monitoring requirement will be implemented for many of the parameters listed below. Stormwater events are acute occurrences that result in the greatest concentrations of pollutants being discharged in the first part of the runoff. This first flush can best be represented by a grab sample within the first hours of runoff. Additionally, stormwater events are highly variable. Recording an average monthly limit (AML) is not representative of the nature of these discharges. Many of these parameters that require just a MDL monitoring only requirement will now have a benchmark value associated with that monitoring only requirement. These benchmark values will be listed under the individual discussion and derivation of each parameter containing such a value.

BENCHMARKS

Benchmark concentrations are **not** effluent limitations; benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data is used to determine the overall effectiveness of control measures and to assist the permittee in knowing when additional corrective action(s) may be necessary to comply with the technology based effluent limitations (TBEL). Failure to take corrective action is a violation of the permit. Benchmark exceedance alone is not a permit violation.

The benchmarks listed in the derivation discussion below have been determined to be feasible, affordable and protective of water quality. These benchmark values are consistent with other stormwater permits including the Environmental Protection Agency’s (EPA) *Multi-Sector General Permit For Stormwater Discharges Associated With Industrial Activity* (MSGP). The facility will be required to monitor for all these parameters and if the benchmarks are exceeded at all in the following permit cycle, then the permit writer will use best professional judgment to determine if effluent limitations will be necessary to protect water quality.

Outfall #005 – Stormwater Outfalls

EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	Basis for Limits	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	GPD	1	*	-	-	YES	***
PRECIPITATION	INCHES	6	*	-	-	YES	***
TSS	MG/L	6	**	-	-	YES	***
pH	SU	1	6.5-9.0	-	-	YES	***
OIL & GREASE (MG/L)	MG/L	6	**	-	-	YES	***

- * - Monitoring requirement only
- ** - Monitoring with associated benchmark
- *** - Parameter not previously established in previous state operating permit.

Basis for Limitations Codes:

- | | |
|--|-----------------------------------|
| 5. State or Federal Regulation/Law | 5. Water Quality Model |
| 6. Water Quality Standard (includes RPA) | 6. Best Professional Judgment |
| 7. Water Quality Based Effluent Limits | 7. TMDL or Permit in lieu of TMDL |
| 8. Antidegradation Review/Policy | 8. WET Test Policy |

OUTFALL #005 – DERIVATION AND DISCUSSION OF LIMITS:

Flow. In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification.

Precipitation. Monitoring only requirement. Measuring the amount of rainfall during an event is necessary to ensure adequate stormwater management exists at the site. Knowing the amount of potential stormwater runoff can provide the permittee a better understanding of specific control measure that should be employed to ensure protection of water quality.

Total Suspended Solids (TSS). Monitoring only with a benchmark value. There is no water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS that may indicate uncontrolled materials leaving the site. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at 100 mg/L. This value falls within the range of values implemented in other permits that have similar industrial activities and the EPA’s MSGP.

pH. 6.5-9.0 SU. Technology based effluent limitations of 6.0-9.0 SU [10 CSR 20-7.015] are not protective of the Water Quality Standard, which states that water contaminants shall not cause pH to be outside the range of 6.5-9.0 SU. No mixing zone is allowed due to the classification of the receiving stream, therefore the water quality standard must be met at the outfall.

Oil & Grease. Monitoring only with a benchmark value. Conventional pollutant, in accordance with 10 CSR 20-7.031 Table A effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum. The site contains machinery that may contain oils, lubricants and other petroleum products. Therefore, it is the permit writer's best professional judgment to add monitoring for this parameter. The benchmark value will be set at 15 mg/L.

MINIMUM SAMPLING AND REPORTING FREQUENCY REQUIREMENTS.

Outfall #005:

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/discharge	once/quarter
Precipitation	once/discharge	once/quarter
TSS	once/discharge	once/quarter
pH	once/discharge	once/quarter
Oil & Grease	once/discharge	once/quarter

Sampling Frequency Justification:

Sampling and Reporting Frequency was established using the current permit frequencies for the existing outfalls. The frequencies from similar outfalls were transferred to the new outfall.

SAMPLING TYPE JUSTIFICATION

Sampling Type was established using the current permit types for the existing outfalls. Grab samples are representative of the stormwater discharge.

Part V – Administrative Requirements

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit.

PUBLIC NOTICE:

The Department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing.

The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

The Public Notice period for this operating permit began September 11, 2015 and ended October 12, 2015. No comments were received.

Date of Statement of Basis: 07/21/2015

Submitted by

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Missouri Department of Natural Resources
STATEMENT OF BASIS
FOR THE PURPOSE OF MODIFICATION
OF
MO-0112950
SPECIALTY GRANULES

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of storm water from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)2.] a Factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (operating permit) listed below.

A Factsheet is not an enforceable part of an operating permit.

This Factsheet is for an Industrial Facility.

Part I – Facility Information

Facility Type: Industrial
 Facility SIC Code(s): 3299, 1423, 1429, 1499

Facility Description:

Formerly ISP Minerals, Specialty Granules Inc. involves surface quarry operation and manufactures roofing granules. The facility consists of two outfalls and three in-stream monitoring points. Outfall #001 is stormwater and process water runoff from a quarry area and other plant areas. This outfall's flow is dependent on quarry stormwater pumping and other stormwater flow. Outfall #002 is a rock dike emergency overflow from process water settling pond and quarry. The three in-stream monitoring points, BC-1, BC-2 and BC-3, were chosen to monitor for total suspended solids before the facility's confluence on Big Creek, point BC-1, point BC-2 is after confluence of the sewage lagoon (City of Annapolis, MO-0023621), and point BC-3 is after the percolation of ISP's settling basin.

Part II – Modification Rationale

This operating permit is hereby modified to reflect the addition of two outfalls. The first additional outfall, listed as Outfall #003 in the permit, is located at the discharge of a catchment pond on the west side of the West Peak Quarry. This outfall was requested as a sampling point for emergency overflows from the pond or to become an active outfall during future expansion of the stockpile area. Currently, all water collected in this catchment pond is recycled through the facility. The second additional outfall, listed as Outfall #004 in the permit, is located on the south side of the West Peak Quarry. This outfall was requested in anticipation of future expansion of the stockpile area.

No other changes were made at this time.

OUTFALL(S) TABLE:

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	EFFLUENT TYPE
003	dependent upon precipitation	Best Management Practices (BMPs)	Industrial stormwater
004	dependent upon precipitation	BMPs	Industrial stormwater

Part III – Receiving Stream Information

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:

As per Missouri’s Effluent Regulations [10 CSR 20-7.015], the waters of the state are divided into the below listed seven (7) categories. Each category lists effluent limitations for specific parameters, which are presented in each outfall’s Effluent Limitation Table and further discussed in the Derivation & Discussion of Limits section.

As per Missouri’s Stormwater Regulations [10 CSR 20.6.200(6)(B)2.], the department shall establish effluent limits as necessary to protect waters of the state. Effluent limitations for stormwater are established using best professional judgment based on the category and designated uses of the receiving stream.

- Missouri or Mississippi River:
- Lake or Reservoir:
- Losing:
- Metropolitan No-Discharge:
- Special Stream:
- Subsurface Water:
- All Other Waters:

10 CSR 20-7.031 Missouri Water Quality Standards, the Department defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and 1st classified receiving stream’s beneficial water uses to be maintained are located in the Receiving Stream Table located below in accordance with [10 CSR 20-7.031(3)].

RECEIVING STREAM(S) TABLE:

OUTFALL	WATERBODY NAME	CLASS	WBID	DESIGNATED USES	DISTANCE TO CLASSIFIED SEGMENT	12-DIGIT HUC
#003	Unnamed tributary to Big Creek	U	N/A	GEN	~ 0.67	08020202-0302
#004	Unnamed tributary to Big Creek	U	N/A	GEN	~ 1.12	
#003 & #004	Big Creek	P	2916	LWW, AQL, CLF, WBC-A, SCR	N/A	

AQL= Protection of Warm Water Aquatic Life and Human Health-Fish Consumption; C= Streams may cease flow in dry periods; CDF= Cold Water Fishery; CLF= Cool Water Fishery; DWS= Drinking Water Supply; E= Ephemeral stream; GRW = Groundwater; HUC= Hydrologic Unit Code; IND= Industrial; IRR=Irrigation; LWW= Livestock & Wildlife Watering; P= Permanent; SCR= Secondary Contact Recreation; U= Unclassified; W= Wetland; WBC= Whole Body Contact Recreation; WBID= Water Body Identification Number

RECEIVING STREAM(S) LOW-FLOW VALUES:

OUTFALL	RECEIVING STREAM (U, C, P)	LOW-FLOW VALUES (CFS)		
		1Q10	7Q10	30Q10
#003 & #004	Unnamed tributary to Big Creek (U)	0.0	0.0	0.0

MIXING CONSIDERATIONS

Mixing Zone: Not Allowed [10 CSR 20-7.031(5)(A)4.B.(I)(a)].
Zone of Initial Dilution: Not Allowed [10 CSR 20-7.031(5)(A)4.B.(I)(b)].

Part IV – Effluent Limits Determination

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

Due to the nature of the discharges from these outfalls being stormwater, only a maximum daily limit (MDL) or monitoring requirement will be implemented for many of the parameters listed below. Stormwater events are acute occurrences that result in the greatest concentrations of pollutants being discharged in the first part of the runoff. This first flush can best be represented by a grab sample within the first hours of runoff. Additionally, stormwater events are highly variable. Recording an average monthly limit (AML) is not representative of the nature of these discharges. Many of these parameters that require just a MDL monitoring only

requirement will now have a benchmark value associated with that monitoring only requirement. These benchmark values will be listed under the individual discussion and derivation of each parameter containing such a value.

BENCHMARKS

Benchmark concentrations are **not** effluent limitations; benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data is used to determine the overall effectiveness of control measures and to assist the permittee in knowing when additional corrective action(s) may be necessary to comply with the technology based effluent limitations (TBEL). Failure to take corrective action is a violation of the permit. Benchmark exceedance alone is not a permit violation.

The benchmarks listed in the derivation discussion below have been determined to be feasible, affordable and protective of water quality. These benchmark values are consistent with other stormwater permits including the Environmental Protection Agency’s (EPA) *Multi-Sector General Permit For Stormwater Discharges Associated With Industrial Activity* (MSGP). The facility will be required to monitor for all these parameters and if the benchmarks are exceeded at all in the following permit cycle, then the permit writer will use best professional judgment to determine if effluent limitations will be necessary to protect water quality.

Outfall #003 & #004 – Stormwater Outfalls

EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	Basis for Limits	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	GPD	1	*	-	-	YES	***
PRECIPITATION	INCHES	6	*	-	-	YES	***
TSS	MG/L	6	**	-	-	YES	***
pH	SU	1	6.5-9.0	-	-	YES	***
OIL & GREASE (MG/L)	MG/L	6	**	-	-	YES	***

- * - Monitoring requirement only
- ** - Monitoring with associated benchmark
- *** - Parameter not previously established in previous state operating permit.

Basis for Limitations Codes:

- | | |
|---|-----------------------------------|
| 9. State or Federal Regulation/Law | 5. Water Quality Model |
| 10. Water Quality Standard (includes RPA) | 6. Best Professional Judgment |
| 11. Water Quality Based Effluent Limits | 7. TMDL or Permit in lieu of TMDL |
| 12. Antidegradation Review/Policy | 8. WET Test Policy |

OUTFALL #003 & #004 – DERIVATION AND DISCUSSION OF LIMITS:

Flow. In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification.

Precipitation. Monitoring only requirement. Measuring the amount of rainfall during an event is necessary to ensure adequate stormwater management exists at the site. Knowing the amount of potential stormwater runoff can provide the permittee a better understanding of specific control measure that should be employed to ensure protection of water quality.

Total Suspended Solids (TSS). Monitoring only with a benchmark value. There is no water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS that may indicate uncontrolled materials leaving the site. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at 100 mg/L. This value falls within the range of values implemented in other permits that have similar industrial activities and the EPA’s MSGP.

pH. 6.5-9.0 SU. Technology based effluent limitations of 6.0-9.0 SU [10 CSR 20-7.015] are not protective of the Water Quality Standard, which states that water contaminants shall not cause pH to be outside the range of 6.5-9.0 SU. No mixing zone is allowed due to the classification of the receiving stream, therefore the water quality standard must be met at the outfall.

Oil & Grease. Monitoring only with a benchmark value. Conventional pollutant, in accordance with 10 CSR 20-7.031 Table A effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum. The site contains machinery that may contain oils, lubricants and other petroleum products. Therefore, it is the permit writer’s best professional judgment to add monitoring for this parameter. The benchmark value will be set at 15 mg/L.

MINIMUM SAMPLING AND REPORTING FREQUENCY REQUIREMENTS.

Outfall #003 & #004:

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/discharge	once/quarter
Precipitation	once/discharge	once/quarter
TSS	once/discharge	once/quarter
pH	once/discharge	once/quarter
Oil & Grease	once/discharge	once/quarter

Sampling Frequency Justification:

Sampling and Reporting Frequency was established using the current permit frequencies for the existing outfalls. Outfall #003 is a catchment basin utilizing emergency overflow when necessary, just like Outfall #002. Outfall #004 is a stormwater discharge, just like Outfall #001. The frequencies from each similar outfall were transferred to the new outfalls.

SAMPLING TYPE JUSTIFICATION

Sampling Type was established using the current permit types for the existing outfalls. Grab samples are representative of the stormwater discharges.

Part V – Administrative Requirements

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit.

PUBLIC NOTICE:

The Department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing.

The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

The Public Notice period for this operating permit began on October 31, 2014 and ended on December 1, 2014. No comments were received during the Public Notice period.

Date of Statement of Basis: 09/30/2014

Submitted by

Logan Cole, Environmental Specialist
Industrial Permit Unit
Operating Permits Section
Water Protection Program
(573)751-5827
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Missouri Department of Natural Resources
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
MO-0112950
SPECIALTY GRANULES

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of storm water from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)2.] a Factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (operating permit) listed below.

A Factsheet is not an enforceable part of an operating permit.

This Factsheet is for an Industrial Facility.

Part I – Facility Information

Facility Type: IND
Facility SIC Codes: 3299, 1423, 1429, 1499

Facility Description:

Formerly ISP Minerals, Specialty Granules Inc. involves surface quarry operation and manufactures roofing granules. The facility consists of two outfalls and three in-stream monitoring points. Outfall #001 is stormwater and process water runoff from a quarry area and other plant areas. This outfall's flow is dependent on quarry stormwater pumping and other stormwater flow. Outfall #002 is a rock dike emergency overflow from process water settling pond and quarry. The three in-stream monitoring points, BC-1, BC-2 and BC-3, were chosen to monitor for total suspended solids before the facility's confluence on Big Creek, point BC-1, point BC-2 is after confluence of the sewage lagoon (City of Annapolis, MO-0023621), and point BC-3 is after the percolation of ISP's settling basin.

Have any changes occurred at this facility or in the receiving water body that effects effluent limit derivation?

- No.

Application Date: 10/24/11
Expiration Date: 03/29/12
Last Inspection: 02/23/11 In Compliance ; Non-Compliance

OUTFALL(S) TABLE:

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	EFFLUENT TYPE	DISTANCE TO CLASSIFIED SEGMENT (MI)
001	0.29	BMP	Stormwater and process water runoff from a quarry area	0.01
002	0.0	BMP	Emergency Stormwater Discharge	0.18

Outfall #001- Stone Crushing-Washing – SIC #3299, 1423, 1429, 1499

Stormwater and process water runoff discharge point from a quarry area and other plant areas. Discharges from this point are dependent upon stormwater and the quarry.

Design Flow: 307,400 gallons per day.

Legal Description: NE ¼, Sec 22, T31N, R 3E, Iron County

UTM Coordinates: X = 703658, Y = 4136847

Receiving Stream: Unnamed Tributary to Big Creek (U)

First Classified Stream and ID: Big Creek (P) (2916) (303d) (2010)

USGS Basin & Sub-watershed No.: (08020202 – 0302)

Outfall #002

This outfall is the Rock Dike emergency overflow located below the process water settling pond and quarry.

Design Flow: dependent upon precipitation

Legal Description: SE ¼, NW ¼, Sec 23, T31N, R3E, Iron County

UTM Coordinates: X = 704714, Y = 4137075

Receiving Stream: Unnamed Tributary to Big Creek (U)

First Classified Stream and ID: Big Creek (P) (2916) (303d) (2010)

USGS Basin & Sub-watershed No.: (08020202 – 0302)

In-stream monitoring point: BC-1.

This in-stream monitoring point is located along Big Creek and is monitored for total suspended solids before the facility's influence on Big Creek (BC-1).

Legal Description: NE ¼, Sec 22, T31N, R3E, Iron County

UTM Coordinates: X = 703311, Y = 4136933

Receiving Stream: Unnamed Tributary to Big Creek (U)

First Classified Stream and ID: Big Creek (P) (2916) (303d) (2010)

USGS Basin & Sub-watershed No.: (08020202 – 0302)

In-stream monitoring point: BC-2.

This in-stream monitoring point is located along Big Creek and is monitored for total suspended after the influence of the sewage lagoon (BC-2).

Legal Description: SW ¼, NW ¼, Sec 23, T31N, R3E, Iron County

UTM Coordinates: X = 704137, Y = 4136961

Receiving Stream: Unnamed Tributary to Big Creek (U)

First Classified Stream and ID: Big Creek (P) (2916) (303d) (2010)

USGS Basin & Sub-watershed No.: (08020202 – 0302)

In-stream monitoring point: BC-3.

This in-stream monitoring point is located along Big Creek and is monitored for total suspended solids after the percolation of Specialty Granules' settling basin (BC-3).

Legal Description: SW ¼, NE ¼, Sec 23, T31N, R3E, Iron County

UTM Coordinates: X = 705108, Y = 4136942

Receiving Stream: Unnamed Tributary to Big Creek (U)

First Classified Stream and ID: Big Creek (P) (2916) (303d) (2010)

USGS Basin & Sub-watershed No.: (08020202 – 0302)

Receiving Water Body's Water Quality & Facility Performance History:

Big Creek is listed on the 2010 Missouri 303(d) List for Cadmium (s), Lead (s), and metals (s) from mill tailings. The facility stated they had no discharge for the duration of their current permit; thus, there is no reason to believe that the facility contributed to the said impairment of Big Creek.

Comments:

The facility's 5-year discharge monitoring report (3/29/07 to 3/29/12) showed no discharge for outfall #002. There is also no violation or exceedance of parameter limits noted for outfall #001.

Specialty Granules has four SIC codes; namely, 3299, 1423, 1429, and 1499.

SIC 3299- Nonmetallic Mineral Products, Not Elsewhere Classified.

-Establishments primarily engaged in the factory production of goods made of plaster of paris and papier-mâché, and in manufacturing sand lime products and other nonmetallic mineral products, not elsewhere classified.

Specialty Granules
Page # 3, Fact Sheet

SIC 1423- Crushed and Broken Granite.

-Establishments primarily engaged in mining or quarrying crushed and broken granite, including related rocks, such as gneiss, syenite, and diorite.

SIC 1429- Crushed and Broken Stone, Not Elsewhere Classified.

-Establishments primarily engaged in mining or quarrying crushed and broken stone, not elsewhere classified.

SIC 1499- Miscellaneous Nonmetallic Minerals, Except Fuels.

-Establishments primarily engaged in mining, quarrying, milling, or otherwise preparing nonmetallic minerals, except fuels. This industry includes the shaping of natural abrasive stones at the quarry. Establishments primarily engaged in the production of blast, grinding, or polishing sand are classified in Industry 1446, and those calcining gypsum are classified in Manufacturing, Industry 3275.

Water quality field monitoring was conducted for the listed parameters during the February 23, 2011 facility inspection. The discharge was clear in color and free of odor. The receiving stream was free of odor and bottom deposits. Sampling was conducted at the site and submitted for laboratory analysis for the parameters listed below. The Environmental Services Program Results of Sample Analyses are listed below.

Outfall 001						
Results of Sample Analyses			Permit Limits			
Parameters	Sample Result	Units	Daily Max	Weekly Average	Monthly Average	Units
pH	7.9	SU	-	-	-	SU
Total Suspended Solids (TSS)	< 5	mg/L	80	-	60	mg/L
Oil & Grease	< 2	mg/L	15	-	10	mg/L
Flow	~.007200	MGD	-	-	-	MGD

Part II – Operator Certification Requirements

Not Applicable;

This facility is not required to have a certified operator.

Part III – Receiving Stream Information

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:

As per Missouri’s Effluent Regulations [10 CSR 20-7.015], the waters of the state are divided into seven (7) categories. Each category lists effluent limitations for specific parameters, which are presented in each outfall’s Effluent Limitation Table and further discussed in the Derivation & Discussion of Limits section.

All Other Waters [10 CSR 20-7.015(8)]:

10 CSR 20-7.031 Missouri Water Quality Standards, the Department defines the Clean Water Commission water quality objectives in terms of “water uses to be maintained and the criteria to protect those uses.” The receiving stream and/or 1st classified receiving stream’s beneficial water uses to be maintained are located in the Receiving Stream Table located below in accordance with [10 CSR 20-7.031(3)].

RECEIVING STREAM(S) TABLE:

WATERBODY NAME	CLASS	WBID	DESIGNATED USES*	12-DIGIT HUC**
Tributary to Big Creek	U	n/a	General Criteria	08020202-0302
Big Creek	P	2916	LWW, AQL, CLF, WBC-A, SCR	

- * - Irrigation (IRR), Livestock & Wildlife Watering (LWW), Protection of Warm Water Aquatic Life and Human Health-Fish Consumption (AQL), Cool Water Fishery (CLF), Cold Water Fishery (CDF), Whole Body Contact Recreation (WBC), Secondary Contact Recreation (SCR), Drinking Water Supply (DWS), Industrial (IND), Groundwater (GRW).
- ** Hydrological Unit Code

RECEIVING STREAM(S) LOW-FLOW VALUES TABLE:

RECEIVING STREAM (U, C, P)	LOW-FLOW VALUES (CFS)		
	1Q10	7Q10	30Q10
Unnamed Tributary to Big Creek (U)	0.0	0.0	0.0

Mixing Zone: Not Allowed [10 CSR 20-7.031(4) (A) 4.B. (I) (a)].
Zone of Initial Dilution: Not Allowed [10 CSR 20-7.031(4) (A) 4.B. (I) (b)].

Part IV – Rationale and Derivation of Effluent Limitations & Permit Conditions

ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:

As per [10 CSR 20-7.015(4)(A)], discharges to losing streams shall be permitted only after other alternatives including land application, discharges to a gaining stream and connection to a regional wastewater treatment facility have been evaluated and determined to be unacceptable for environmental and/or economic reasons.

Not Applicable;
The facility does not discharge to a Losing Stream as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1) (N)], or is an existing facility.

ANTI-BACKSLIDING:

A provision in the Federal Regulations [CWA §303(d) (4); CWA §402(c); 40 CFR Part 122.44(I)] that requires a reissued permit to be as stringent as the previous permit with some exceptions.

- All limits in this operating permit are at least as protective as those previously established; therefore, backsliding does not apply. Additionally, the previous permit contained limitations for settleable solids. It has been determined based on the best professional judgment of the permit writer utilizing information from EPA’s Multi-sector General Permit for facilities with similar activities to Specialty Granules that settleable solids limitations are not necessary given the established TSS limitations to ensure the protection of the general criteria of Missouri’s Water Quality Standard. Given these facts, backsliding does not apply per Section 402(o)(2) of the Clean Water Act.

ANTIDegradation:

In accordance with Missouri's Water Quality Standard [10 CSR 20-7.031(2)], the Department is to document by means of Antidegradation Review that the use of a water body's available assimilative capacity is justified. Degradation is justified by documenting the socio-economic importance of a discharging activity after determining the necessity of the discharge.

- Renewal; no degradation proposed and no further review necessary. This permit requires the development and implementation of a Storm Water Pollution Prevention Program (SWPPP). The SWPPP includes a list of BMPs to be used on the sites that are expected to be non-degrading or minimally degrading. The selected BMPs shall be reasonable and cost-effective and ensure the best water quality attainable for the site. The SWPPP development and implementation serves as the review of alternative technologies, and fulfills the Antidegradation requirements of 10 CSR 20-7.031.

AREA-WIDE WASTE TREATMENT MANAGEMENT & CONTINUING AUTHORITY:

As per [10 CSR 20-6.010(3) (B)], ...An applicant may utilize a lower preference continuing authority by submitting, as part of the application, a statement waiving preferential status from each existing higher preference authority, providing the waiver does not conflict with any area-wide management plan approved under section 208 of the Federal Clean Water Act or any other regional sewage service and treatment plan approved for higher preference authority by the Department.

BIOSOLIDS & SEWAGE SLUDGE:

Biosolids are solid materials resulting from domestic wastewater treatment that meet federal and state criteria for beneficial uses (i.e. fertilizer). Sewage sludge is solids, semi-solids, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works. Additional information regarding biosolids and sludge is located at the following web address:

<http://dnr.mo.gov/env/wpp/pub/index.html>, items WQ422 through WQ449.

Not applicable;

This condition is not applicable to the permittee for this facility.

COMPLIANCE AND ENFORCEMENT:

Enforcement is the action taken by the Water Protection Program (WPP) to bring an entity into compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and conditions of an operating permit. The primary purpose of the enforcement activity in the WPP is to resolve violations and return the entity to compliance.

Not Applicable;

The permittee/facility is not currently under Water Protection Program enforcement action.

PRETREATMENT PROGRAM:

The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a Publicly Owned Treatment Works [40 CFR Part 403.3(q)].

Pretreatment programs are required at any POTW (or combination of POTW operated by the same authority) and/or municipality with a total design flow greater than 5.0 MGD and receiving industrial wastes that interfere with or pass through the treatment works or are otherwise subject to the pretreatment standards. Pretreatment programs can also be required at POTWs/municipals with a design flow less than 5.0 MGD if needed to prevent interference with operations or pass through.

Several special conditions pertaining to the permittee's pretreatment program may be included in the permit, and are as follows:

- Implementation and enforcement of the program,
- Annual pretreatment report submittal,
- Submittal of list of industrial users,
- Technical evaluation of need to establish local limitations, and
- Submittal of the results of the evaluation

Not Applicable;

The permittee, at this time, is not required to have a Pretreatment Program or does not have an approved pretreatment program.

REASONABLE POTENTIAL ANALYSIS (RPA):

Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above narrative or numeric water quality standard.

In accordance with [40 CFR Part 122.44(d) (iii)] if the permit writer determines that any give pollutant has the reasonable potential to cause, or contribute to an in-stream excursion above the WQS, the permit must contain effluent limits for that pollutant.

Not Applicable;

A RPA was not conducted for this facility.

REMOVAL EFFICIENCY:

Removal efficiency is a method by which the Federal Regulations define Secondary Treatment and Equivalent to Secondary Treatment, which applies to Biochemical Oxygen Demand 5-day (BOD₅) and Total Suspended Solids (TSS) for Publicly Owned Treatment Works (POTWs)/municipals.

Not Applicable;

Influent monitoring is not being required to determine percent removal.

SANITARY SEWER OVERFLOWS (SSO) AND INFLOW AND INFILTRATION (I&I):

Sanitary Sewer Overflows (SSOs) are defined as an untreated or partially treated sewage release are considered bypassing under state regulation [10 CSR 20-2.010(11)] and should not be confused with the federal definition of bypass. SSO's have a variety of causes including blockages, line breaks, and sewer defects that allow excess storm water and ground water to (1) enter and overload the collection system, and (2) overload the treatment facility. Additionally, SSO's can be also be caused by lapses in sewer system operation and maintenance, inadequate sewer design and construction, power failures, and vandalism. SSOs also include overflows out of manholes and onto city streets, sidewalks, and other terrestrial locations.

Additionally, Missouri RSMo §644.026.1 mandates that the Department require proper maintenance and operation of treatment facilities and sewer systems and proper disposal of residual waste from all such facilities.

- Not applicable. This facility is not required to develop or implement a program for maintenance and repair of the collection system; however, it is a violation of Missouri State Environmental Laws and Regulations to allow untreated wastewater to discharge to waters of the state.

SCHEDULE OF COMPLIANCE (SOC):

A schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (actions, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit.

Not Applicable;

This permit does not contain a SOC.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP):

In accordance with 40 CFR 122.44(k) *Best Management Practices (BMPs)* to control or abate the discharge of pollutants when: (1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; (2) Authorized under section 402(p) of the CWA for the control of storm water discharges; (3) Numeric effluent limitations are infeasible; or (4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (Document number EPA 833-B-09-002) [published by the United States Environmental Protection Agency (USEPA) in February 2009], BMPs are measures or practices used to reduce the amount of pollution entering (regarding this operating permit) waters of the state. BMPs may take the form of a process, activity, or physical structure.

Additionally in accordance with the Storm Water Management, a SWPPP is a series of steps and activities to (1) identify sources of pollution or contamination, and (2) select and carry out actions which prevent or control the pollution of storm water discharges.

Applicable;

A SWPPP shall be developed and implemented for each site and shall incorporate required practices identified by the Department with jurisdiction, incorporate erosion control practices specific to site conditions, and provide for maintenance and adherence to the plan.

VARIANCE:

As per the Missouri Clean Water Law § 644.061.4, variances shall be granted for such period of time and under such terms and conditions as shall be specified by the commission in its order. The variance may be extended by affirmative action of the commission. In no event shall the variance be granted for a period of time greater than is reasonably necessary for complying with the Missouri Clean Water Law §§644.006 to 644.141 or any standard, rule or regulation promulgated pursuant to Missouri Clean Water Law §§644.006 to 644.141.

Not Applicable;

This operating permit is not drafted under premises of a petition for variance.

WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:

As per [10 CSR 20-2.010(78)], the amount of pollutant each discharger is allowed by the Department to release into a given stream after the Department has determined total amount of pollutant that may be discharged into that stream without endangering its water quality.

Not Applicable;

Wasteload allocations were not calculated.

WLA MODELING:

There are two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs). If TBELs do not provide adequate protection for the receiving waters, then WQBEL must be used.

Not Applicable;

A WLA study was either not submitted or determined not applicable by Department staff.

WATER QUALITY STANDARDS:

Per [10 CSR 20-7.031(3)], General Criteria shall be applicable to all waters of the state at all times including mixing zones. Additionally, [40 CFR 122.44(d)(1)] directs the Department to establish in each NPDES permit to include conditions to achieve water quality established under Section 303 of the Clean Water Act, including State narrative criteria for water quality.

WHOLE EFFLUENT TOXICITY (WET) TEST:

A WET test is a quantifiable method of determining if a discharge from a facility may be causing toxicity to aquatic life by itself, in combination with or through synergistic responses when mixed with receiving stream water.

Not Applicable;

At this time, the permittee is not required to conduct WET test for this facility.

40 CFR 122.41(M) - BYPASSES:

The federal Clean Water Act (CWA), Section 402 prohibits wastewater dischargers from “bypassing” untreated or partially treated sewage (wastewater) beyond the headworks. A bypass, which includes blending, is defined as an intentional diversion of waste streams from any portion of a treatment facility, [40 CFR 122.41(m) (1) (i)]. Additionally, Missouri regulation 10 CSR 20-2.010(11) defines a bypass as the diversion of wastewater from any portion of wastewater treatment facility or sewer system to waters of the state. Only under exceptional and specified limitations do the federal regulations allow for a facility to bypass some or all of the flow from its treatment process. Bypasses are prohibited by the CWA unless a permittee can meet all of the criteria listed in 40 CFR 122.41(m) (4) (i) (A), (B), & (C). Any bypasses from this facility are subject to the reporting required in 40 CFR 122.41(l) (6) and per Missouri’s Standard Conditions I, Section B, part 2.b. Additionally, Anticipated Bypasses include bypasses from peak flow basins or similar devices designed for peak wet weather flows.

Not Applicable;

This facility does not bypass.

303(d) LIST & TOTAL MAXIMUM DAILY LOAD (TMDL):

Section 303(d) of the federal Clean Water Act requires that each state identify waters that are not meeting water quality standards and for which adequate water pollution controls have not been required. Water quality standards protect such beneficial uses of water as whole body contact (such as swimming), maintaining fish and other aquatic life, and providing drinking water for people, livestock and wildlife. The 303(d) list helps state and federal agencies keep track of waters that are impaired but not addressed by normal water pollution control programs.

A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is affected. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan will be developed that shall include the TMDL calculation

Applicable;

Big Creek is listed on the 2010 Missouri 303(d) List for cadmium (s), lead (s), and metals (s) from mill tailings. The facility stated they had no discharge for the duration of their permit; thus, there is no reason to believe the facility contributed to the impairment of Big Creek.

Part V – Effluent Limits Determination

EFFLUENT LIMITATIONS TABLE: OUTFALLS #001

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	MGD	1	*		*	NO	*
TOTAL SUSPENDED SOLIDS	MG/L	9	80		60	NO	80/60
pH	SU	1	**		**	YES	6.0-9.0
OIL & GREASE	MG/L	9	15		10	NO	15/10
PRECIPITATION	Inches	9	*		*	NO	*

OUTFALL #001 – DERIVATION AND DISCUSSION OF LIMITS:

- **Precipitation.** Monitoring requirement only.
- **Flow.** In accordance with [40 CFR Part 122.44(i) (1) (ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification.
- **Oil & Grease.** Conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum.
- **Total Suspended Solids.** Limitations obtained using the permit writer’s Best Professional Judgment to ensure compliance with the General Water Quality Criteria as stated in 10 CSR 20-7.031(3). Based on the facility’s previous performance, these limits are achievable.
- **pH.** In accordance with [10 CSR 20-7.031(4) (E)], pH shall be maintained in the range from six and one-half to nine (6.5-9.0) standard units.

EFFLUENT LIMITATIONS TABLE: OUTFALLS #002

PARAMETER	UNIT	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
TOTAL SUSPENDED SOLIDS	MG/L	*		*	NO	*
pH	SU	**		**	NEW PARAMETER	
OIL & GREASE	MG/L	15		10	NEW PARAMETER	

OUTFALL #002 – DERIVATION AND DISCUSSION OF LIMITS:

- **Total Suspended Solids.** Monitoring requirements for TSS has been retained from the previous permit.
- **Oil & Grease.** Conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum.

- **pH.** In accordance with [10 CSR 20-7.031(4) (E)], pH shall be maintained in the range from six and one-half to nine (6.5-9.0) standard units.

EFFLUENT LIMITATIONS TABLE: IN-STREAM MONITORING POINTS BC-1, BC-2, AND BC-3

PARAMETER	UNIT	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
TOTAL SUSPENDED SOLIDS	MG/L	*		*	NO	*

* - Monitoring requirement only.

** - pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.

Part VI - Finding of Affordability

Pursuant to Section 644.145, RSMo., the Department is required to determine whether a permit or decision is affordable and makes a finding of affordability for certain permitting and enforcement decisions. This requirement applies to discharges from combined or separate sanitary sewer systems or publically-owned treatment works.

Not Applicable;

The Department is not required to determine findings of affordability because the facility is not a **combined or separate sanitary sewer system for a publically-owned treatment works**.

Part VII – Administrative Requirements

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

PERMIT SYNCHRONIZATION:

The Department of Natural Resources is currently undergoing a synchronization process for operating permits. Permits are normally issued on a five-year term, but to achieve synchronization many permits will need to be issued for less than the full five years allowed by regulation. The intent is that all permits within a watershed will move through the Watershed Based Management (WBM) cycle together will all expire in the same fiscal year. This will allow further streamlining by placing multiple permits within a smaller geographic area on public notice simultaneously, thereby reducing repeated administrative efforts. This will also allow the Department to explore a watershed based permitting effort at some point in the future.

This permit will expire on **December 31, 2016** in order to meet the permit synchronization goals.

PUBLIC NOTICE:

The Department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing.

The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

- The Public Notice period for this operating permit is tentatively scheduled to begin in October 2012.

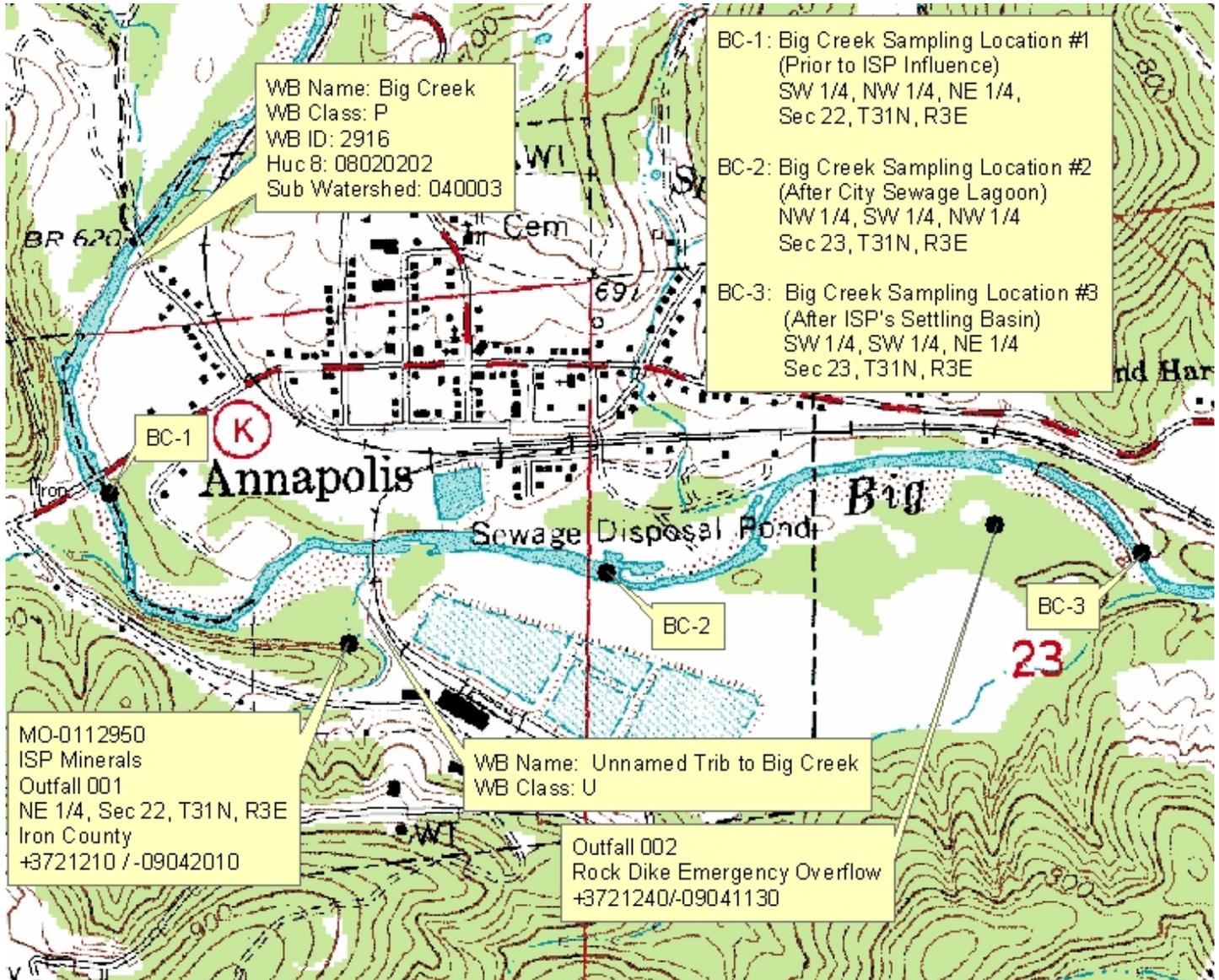
The Public Notice period for this operating permit was from October 13, 2012 to November 13, 2012. No responses received or responses to the Public Notice of this operating permit do not warrant the modification of effluent limits and/or the terms and conditions of this permit.

DATE OF FACT SHEET: SEPTEMBER 13, 2012

COMPLETED BY:

JOY JOHNSON, ENVIRONMENTAL SPECIALIST III
NPDES PERMITS UNIT
WATER PROTECTION PROGRAM
(573) 751-6982
joy.johnson@dnr.mo.gov

APPENDIX A: SPECIALTY GRANULES' OUTFALLS & MONITORING POINTS





STANDARD CONDITIONS FOR NPDES PERMITS
ISSUED BY
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION
REVISED
AUGUST 1, 2014

These Standard Conditions incorporate permit conditions as required by 40 CFR 122.41 or other applicable state statutes or regulations. These minimum conditions apply unless superseded by requirements specified in the permit.

Part I – General Conditions

Section A – Sampling, Monitoring, and Recording

1. **Sampling Requirements.**
 - a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
 - b. All samples shall be taken at the outfall(s) or Missouri Department of Natural Resources (Department) approved sampling location(s), and unless specified, before the effluent joins or is diluted by any other body of water or substance.
2. **Monitoring Requirements.**
 - a. Records of monitoring information shall include:
 - i. The date, exact place, and time of sampling or measurements;
 - ii. The individual(s) who performed the sampling or measurements;
 - iii. The date(s) analyses were performed;
 - iv. The individual(s) who performed the analyses;
 - v. The analytical techniques or methods used; and
 - vi. The results of such analyses.
 - b. If the permittee monitors any pollutant more frequently than required by the permit at the location specified in the permit using test procedures approved under 40 CFR Part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, the results of such monitoring shall be included in the calculation and reported to the Department with the discharge monitoring report data (DMR) submitted to the Department pursuant to Section B, paragraph 7.
3. **Sample and Monitoring Calculations.** Calculations for all sample and monitoring results which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.
4. **Test Procedures.** The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 unless alternates are approved by the Department. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure that the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations that are low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is “sufficiently sensitive” when; 1) the method minimum level is at or below the level of the applicable water quality criterion for the pollutant or, 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility’s discharge is high enough that the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015. These methods are also required for parameters that are listed as monitoring only, as the data collected may be used to determine if limitations need to be established. A permittee is responsible for working with their contractors to ensure that the analysis performed is sufficiently sensitive.
5. **Record Retention.** Except for records of monitoring information required by the permit related to the permittee’s sewage sludge use and disposal activities, which shall be retained for a period of at least five (5) years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

6. **Illegal Activities.**
 - a. The Federal Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than two (2) years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four (4) years, or both.
 - b. The Missouri Clean Water Law provides that any person or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than six (6) months, or by both. Second and successive convictions for violation under this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

Section B – Reporting Requirements

1. **Planned Changes.**
 - a. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility when:
 - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 - ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42;
 - iii. The alteration or addition results in a significant change in the permittee’s sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
 - iv. Any facility expansions, production increases, or process modifications which will result in a new or substantially different discharge or sludge characteristics must be reported to the Department 60 days before the facility or process modification begins. Notification may be accomplished by application for a new permit. If the discharge does not violate effluent limitations specified in the permit, the facility is to submit a notice to the Department of the changed discharge at least 30 days before such changes. The Department may require a construction permit and/or permit modification as a result of the proposed changes at the facility.
2. **Non-compliance Reporting.**
 - a. The permittee shall report any noncompliance which may endanger health or the environment. Relevant information shall be provided orally or via the current electronic method approved by the Department, within 24 hours from the time the permittee becomes aware of the circumstances, and shall be reported to the appropriate Regional Office during normal business hours or the Environmental Emergency Response hotline at 573-634-2436 outside of normal business hours. A written submission shall also be provided within five (5) business days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.



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- b. The following shall be included as information which must be reported within 24 hours under this paragraph.
 - i. Any unanticipated bypass which exceeds any effluent limitation in the permit.
 - ii. Any upset which exceeds any effluent limitation in the permit.
 - iii. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit required to be reported within 24 hours.
 - c. The Department may waive the written report on a case-by-case basis for reports under paragraph 2. b. of this section if the oral report has been received within 24 hours.
3. **Anticipated Noncompliance.** The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The notice shall be submitted to the Department 60 days prior to such changes or activity.
 4. **Compliance Schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date. The report shall provide an explanation for the instance of noncompliance and a proposed schedule or anticipated date, for achieving compliance with the compliance schedule requirement.
 5. **Other Noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs 2, 3, and 6 of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph 2. a. of this section.
 6. **Other Information.** Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.
 7. **Discharge Monitoring Reports.**
 - a. Monitoring results shall be reported at the intervals specified in the permit.
 - b. Monitoring results must be reported to the Department via the current method approved by the Department, unless the permittee has been granted a waiver from using the method. If the permittee has been granted a waiver, the permittee must use forms provided by the Department.
 - c. Monitoring results shall be reported to the Department no later than the 28th day of the month following the end of the reporting period.
- b. Notice.
 - i. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
 - ii. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section B – Reporting Requirements, paragraph 5 (24-hour notice).
 - c. Prohibition of bypass.
 - i. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
 1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 3. The permittee submitted notices as required under paragraph 2. b. of this section.
 - ii. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three (3) conditions listed above in paragraph 2. c. i. of this section.
3. **Upset Requirements.**
 - a. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph 3. b. of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
 - b. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - i. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - ii. The permitted facility was at the time being properly operated; and
 - iii. The permittee submitted notice of the upset as required in Section B – Reporting Requirements, paragraph 2. b. ii. (24-hour notice).
 - iv. The permittee complied with any remedial measures required under Section D – Administrative Requirements, paragraph 4.
 - c. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

Section C – Bypass/Upset Requirements

1. **Definitions.**
 - a. *Bypass*: the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending.
 - b. *Severe Property Damage*: substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
 - c. *Upset*: an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
2. **Bypass Requirements.**
 - a. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2. b. and 2. c. of this section.

Section D – Administrative Requirements

1. **Duty to Comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Missouri Clean Water Law and Federal Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
 - a. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
 - b. The Federal Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$25,000 per day for each violation. The Federal Clean Water Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement



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- imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.
- c. Any person may be assessed an administrative penalty by the EPA Director for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.
- d. It is unlawful for any person to cause or permit any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law, or any standard, rule or regulation promulgated by the commission. In the event the commission or the director determines that any provision of sections 644.006 to 644.141 of the Missouri Clean Water Law or standard, rules, limitations or regulations promulgated pursuant thereto, or permits issued by, or any final abatement order, other order, or determination made by the commission or the director, or any filing requirement pursuant to sections 644.006 to 644.141 of the Missouri Clean Water Law or any other provision which this state is required to enforce pursuant to any federal water pollution control act, is being, was, or is in imminent danger of being violated, the commission or director may cause to have instituted a civil action in any court of competent jurisdiction for the injunctive relief to prevent any such violation or further violation or for the assessment of a penalty not to exceed \$10,000 per day for each day, or part thereof, the violation occurred and continues to occur, or both, as the court deems proper. Any person who willfully or negligently commits any violation in this paragraph shall, upon conviction, be punished by a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or both. Second and successive convictions for violation of the same provision of this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.
2. **Duty to Reapply.**
- a. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.
- b. A permittee with a currently effective site-specific permit shall submit an application for renewal at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Department. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
- c. A permittees with currently effective general permit shall submit an application for renewal at least 30 days before the existing permit expires, unless the permittee has been notified by the Department that an earlier application must be made. The Department may grant permission for a later submission date. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
3. **Need to Halt or Reduce Activity Not a Defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
4. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
5. **Proper Operation and Maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
6. **Permit Actions.**
- a. Subject to compliance with statutory requirements of the Law and Regulations and applicable Court Order, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
- i. Violations of any terms or conditions of this permit or the law;
- ii. Having obtained this permit by misrepresentation or failure to disclose fully any relevant facts;
- iii. A change in any circumstances or conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
- iv. Any reason set forth in the Law or Regulations.
- b. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
7. **Permit Transfer.**
- a. Subject to 10 CSR 20-6.010, an operating permit may be transferred upon submission to the Department of an application to transfer signed by the existing owner and the new owner, unless prohibited by the terms of the permit. Until such time the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.
- b. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Missouri Clean Water Law or the Federal Clean Water Act.
- c. The Department, within 30 days of receipt of the application, shall notify the new permittee of its intent to revoke or reissue or transfer the permit.
8. **Toxic Pollutants.** The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Federal Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
9. **Property Rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.



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10. **Duty to Provide Information.** The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.
11. **Inspection and Entry.** The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), upon presentation of credentials and other documents as may be required by law, to:
 - a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 - d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Federal Clean Water Act or Missouri Clean Water Law, any substances or parameters at any location.
12. **Closure of Treatment Facilities.**
 - a. Persons who cease operation or plan to cease operation of waste, wastewater, and sludge handling and treatment facilities shall close the facilities in accordance with a closure plan approved by the Department.
 - b. Operating Permits under 10 CSR 20-6.010 or under 10 CSR 20-6.015 are required until all waste, wastewater, and sludges have been disposed of in accordance with the closure plan approved by the Department and any disturbed areas have been properly stabilized. Disturbed areas will be considered stabilized when perennial vegetation, pavement, or structures using permanent materials cover all areas that have been disturbed. Vegetative cover, if used, shall be at least 70% plant density over 100% of the disturbed area.
13. **Signatory Requirement.**
 - a. All permit applications, reports required by the permit, or information requested by the Department shall be signed and certified. (See 40 CFR 122.22 and 10 CSR 20-6.010)
 - b. The Federal Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six (6) months per violation, or by both.
 - c. The Missouri Clean Water Law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan, or other document filed or required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for not more than six months, or by both.
14. **Severability.** The provisions of the permit are severable, and if any provision of the permit, or the application of any provision of the permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of the permit, shall not be affected thereby.



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 WATER PROTECTION PROGRAM
**FORM A – APPLICATION FOR NONDOMESTIC PERMIT UNDER MISSOURI
 CLEAN WATER LAW**

APR 2013

FOR AGENCY USE ONLY	
CHECK NUMBER	36247
DATE RECEIVED	09/21/15
FEE SUBMITTED	\$450.00

Note ▶ PLEASE READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM.

1. This application is for:

An operating permit for a new or unpermitted facility:
Please indicate the original Construction Permit # _____

An operating permit renewal:
Please indicate the permit # MO- _____ Expiration Date _____

An operating permit modification:
Please indicate the permit # MO- 0112950 Modification Reason: **New outfall location**

RECEIVED
SEP 21 2015
Water Protection Program

1.1 Is the appropriate fee included with the application? (See instructions for appropriate fee) YES NO

2. FACILITY

NAME Specialty Granules Inc. - Annapolis Facility		TELEPHONE NUMBER WITH AREA CODE (573) 598-4235	
ADDRESS (PHYSICAL) #1 Hillcrest Drive		CITY Annapolis	STATE MO
		ZIP CODE 63620	FAX (573) 598-3970

3. OWNER

NAME Specialty Granules Inc.		TELEPHONE NUMBER WITH AREA CODE (301) 733-4000	
ADDRESS (MAILING) 13424 Pennsylvania Avenue		CITY Hagerstown	STATE MD
		ZIP CODE 21742	FAX (301) 733-4003
EMAIL ADDRESS mmcclure@specialtygranules.com			

3.1 Request review of draft permit prior to public notice? YES NO

4. CONTINUING AUTHORITY

NAME Specialty Granules Inc.		TELEPHONE NUMBER WITH AREA CODE (301) 733-4000	
ADDRESS (MAILING) #1 Hillcrest Drive		CITY Annapolis	STATE MO
		ZIP CODE 63620	FAX (301) 733-4003
EMAIL ADDRESS mmcclure@specialtygranules.com			

5. OPERATOR

NAME Same		TELEPHONE NUMBER WITH AREA CODE	
ADDRESS (MAILING)		CITY	STATE
		ZIP CODE	FAX
CERTIFICATE NUMBER			

6. FACILITY CONTACT

NAME Matt McClure		TELEPHONE NUMBER WITH AREA CODE (301) 393-8825	
TITLE Director Environmental Risk Mgmt.		FAX (301) 733-4003	
E-MAIL ADDRESS mmcclure@specialtygranules.com			

7. ADDITIONAL FACILITY INFORMATION

7.1 Legal Description of Outfalls. (Attach additional sheets if necessary.)

001 _____ 1/4 _____ NE 1/4 _____ Sec 22 _____ T 31N _____ R 3E _____ Iron County
 UTM Coordinates Easting (X): 703658 _____ Northing (Y): 4136847 _____
For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

002 _____ SE 1/4 _____ NW 1/4 _____ Sec 23 _____ T 31N _____ R 3E _____ Iron County
 UTM Coordinates Easting (X): 704714 _____ Northing (Y): 4137075 _____

003 _____ 1/4 _____ SW 1/4 _____ Sec 22 _____ T 31N _____ R 3E _____ Iron County
 UTM Coordinates Easting (X): 702730 _____ Northing (Y): 4136274 _____

004 _____ 1/4 _____ SW 1/4 _____ Sec 22 _____ T 31N _____ R 3E _____ Iron County
 UTM Coordinates Easting (X): 702752 _____ Northing (Y): 4135895 _____

7.2 Primary Standard Industrial Classification (SIC) and Facility North American Industrial Classification System (NAICS) Codes.

001 – SIC 3299 _____ and NAICS _____ 002 – SIC 1423 _____ and NAICS _____
 003 – SIC 1429 _____ and NAICS _____ 004 – SIC 1499 _____ and NAICS _____

Section 7.1 (continued) Additional Legal Descriptions of Outfalls

005 NE ¼ NE ¼ Sec 27 T 31N R 3E Iron County

UTM Coordinates Easting (X): 703982 Northing (Y): 4135749

006 NE ¼ _____¼ Sec 22 T 31N R 3E Iron County

UTM Coordinates Easting (X): 704025 Northing (Y): 4136970

8. ADDITIONAL FORMS AND MAPS NECESSARY TO COMPLETE THIS APPLICATION
(Complete all forms that are applicable.)

- A. Is your facility a manufacturing, commercial, mining or silviculture waste treatment facility? YES NO
 If yes, complete Form C or 2F.
 (2F is the U.S. EPA's Application for Storm Water Discharges Associate with Industrial Activity.)
- B. Is application for storm water discharges only? YES NO
 If yes, complete Form C or 2F.
- C. Is your facility considered a "Primary Industry" under EPA guidelines: YES NO
 If yes, complete Forms C or 2F and D.
- D. Is wastewater land applied? YES NO
 If yes, complete Form I.
- E. Is sludge, biosolids, ash or residuals generated, treated, stored or land applied? YES NO
 If yes, complete Form R.
- F. If you are a Class IA CAFO, please disregard part D and E of this section. However, please attach any revision to your Nutrient Management Plan.
- F. Attach a map showing all outfalls and the receiving stream at 1" = 2,000' scale.

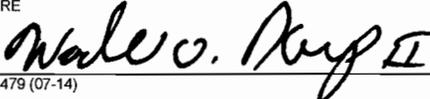
9. DOWNSTREAM LANDOWNER(S) Attach additional sheets as necessary. See Instructions.
 (PLEASE SHOW LOCATION ON MAP. SEE 8.D ABOVE).

NAME
 Campbell, Robert & Hill, Joan M (H & W) (D)

ADDRESS 103 Elm Street	CITY Annapolis	STATE MO	ZIP CODE 63620
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10. I certify that I am familiar with the information contained in the application, that to the best of my knowledge and belief such information is true, complete and accurate, and if granted this permit, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders and decisions, subject to any legitimate appeal available to applicant under the Missouri Clean Water Law to the Missouri Clean Water Commission.

NAME AND OFFICIAL TITLE (TYPE OR PRINT) Wade Kemp - Vice President and General Manager	TELEPHONE NUMBER WITH AREA CODE (301) 393-8866
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SIGNATURE 	DATE SIGNED 9/8/15
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MO 780-1479 (07-14)

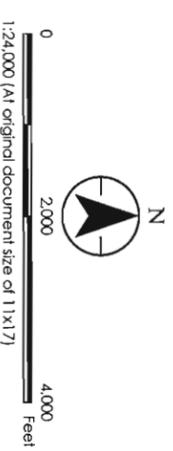
BEFORE MAILING, PLEASE ENSURE ALL SECTIONS ARE COMPLETED AND ADDITIONAL FORMS, IF APPLICABLE, ARE INCLUDED.

Submittal of an incomplete application may result in the application being returned.

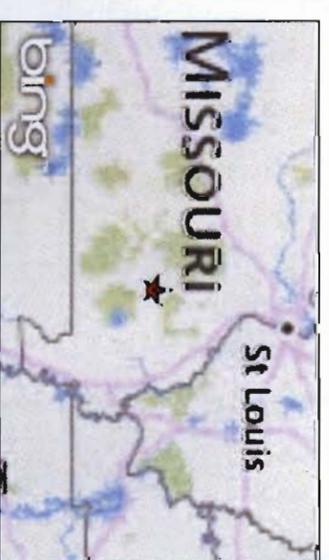
HAVE YOU INCLUDED:

- Appropriate Fees?
- Map at 1" = 2000' scale?
- Signature?
- Form C or 2F, if applicable?
- Form D, if applicable?
- Form I (Irrigation), if applicable?
- Form R (Sludge), if applicable?
- Revised Nutrient Management Plan, if applicable?

- Legend**
- Outfall
 - Sampling Point
 - Approximate SGI Property Boundary
 - Downstream Property Owner
 - Detail Box



- Notes**
1. Coordinate System: NAD 1983 StatePlane Missouri East FIPS 2401 Feet
 2. Orthomagey: Bing @ 2013 Nokia @ ANI @ 2014 Microsoft Corporation. Image courtesy of USGS Earthstar Geographics. SIO @ 2014 Microsoft Corporation



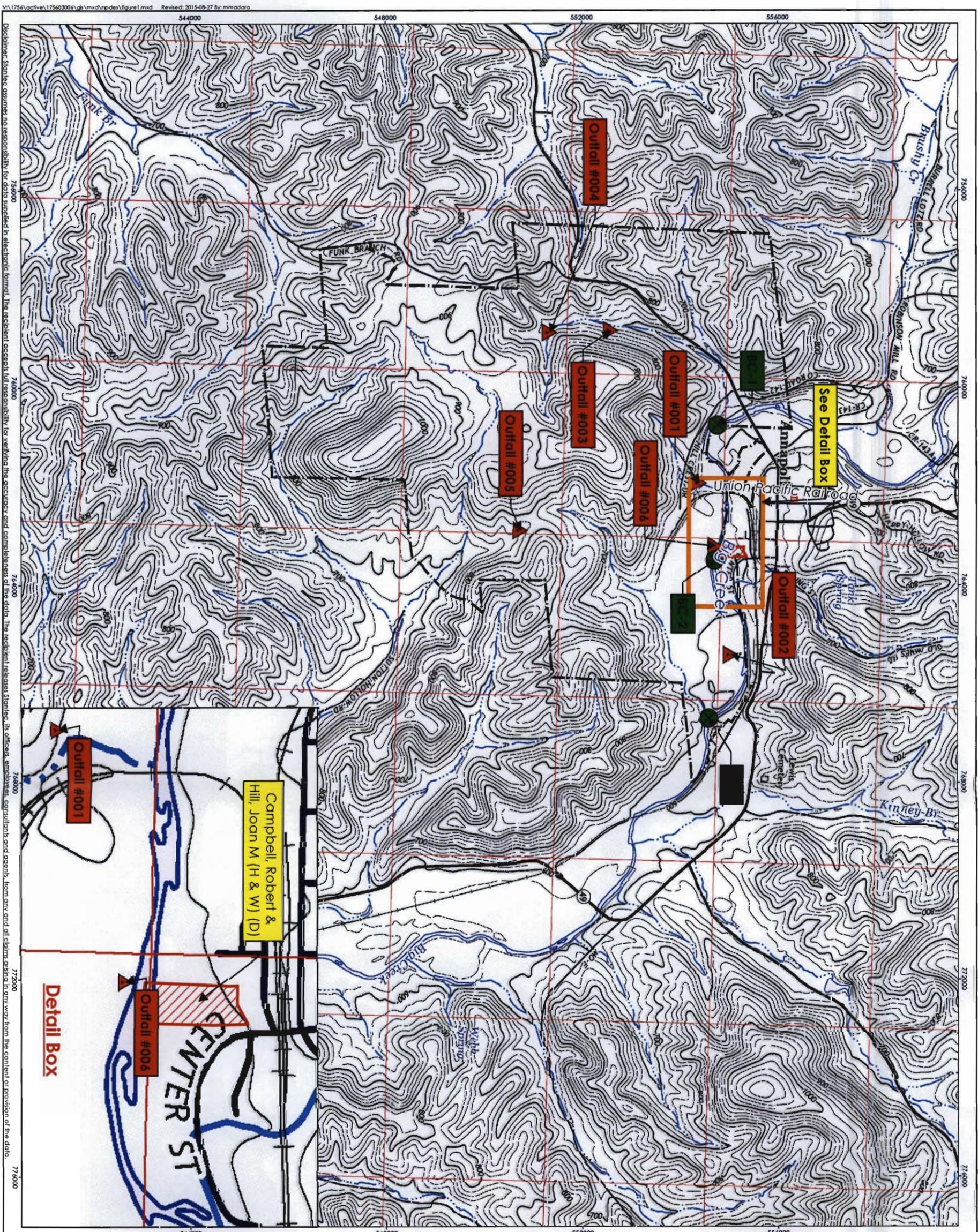
Project Location
City of Annapolis,
Ken County, Missouri

Prepared by MAM on 2014-06-11
Technical Review by RM on 2014-06-11

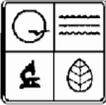
Client/Project
Specialty Granules, Inc. (SGI)
North Area Stockpile
Sediment Pond

Figure No.
1

NPDES Permit, Outfall #006
Figure 1: NPDES Outfall Locations



V:\1756\active\175603006\gis\mxd\mpdes\figure1.mxd Revised: 2015-08-27 By: mmadara
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MISSOURI DEPARTMENT OF NATURAL RESOURCES
 WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH
FORM C – APPLICATION FOR DISCHARGE PERMIT –
MANUFACTURING, COMMERCIAL, MINING,
SILVICULTURE OPERATIONS, PROCESS AND STORMWATER

FOR AGENCY USE ONLY	
CHECK NO.	
DATE RECEIVED	FEE SUBMITTED

NOTE: DO NOT ATTEMPT TO COMPLETE THIS FORM BEFORE READING THE ACCOMPANYING INSTRUCTIONS

1.00 NAME OF FACILITY
 Specialty Granules Inc.

1.10 THIS FACILITY IS NOW IN OPERATION UNDER MISSOURI OPERATING PERMIT NUMBER
 MO-0112950

1.20 THIS IS A NEW FACILITY AND WAS CONSTRUCTED UNDER MISSOURI CONSTRUCTION PERMIT NUMBER (COMPLETE ONLY IF THIS FACILITY DOES NOT HAVE AN OPERATING PERMIT).

2.00 LIST THE STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES APPLICABLE TO YOUR FACILITY (FOUR DIGIT CODE)

A. FIRST 3299 B. SECOND 1423
 C. THIRD 1429 D. FOURTH 1499

2.10 FOR EACH OUTFALL GIVE THE LEGAL DESCRIPTION.

OUTFALL NUMBER (LIST) NE 1/4 1/4 SEC 22 T 31N R 3E Iron COUNTY

2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER

OUTFALL NUMBER (LIST) 006 RECEIVING WATER Big Creek

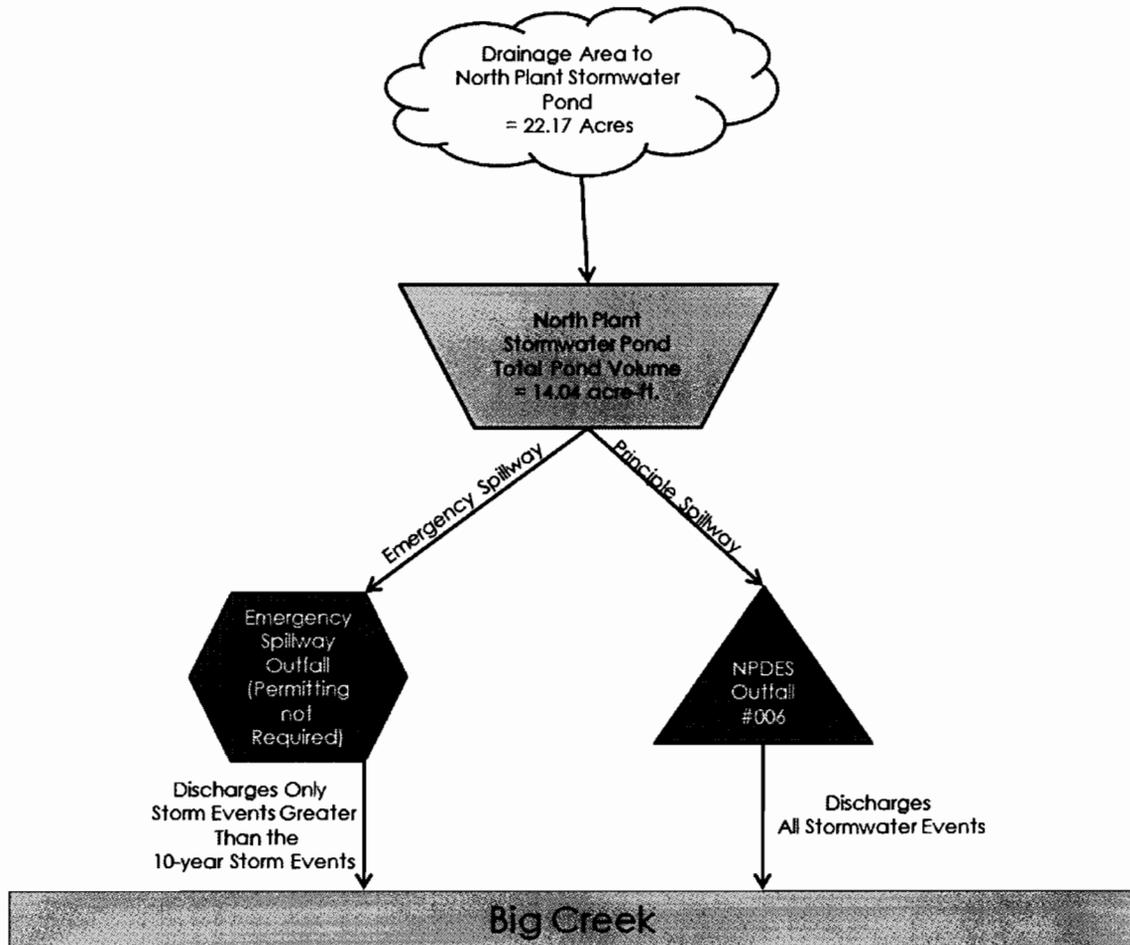
2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS

Own and operate a hard rock quarry in which rhyolite is extracted, crushed, and screened for producing colored roofing granules.

Surface quarry operation and manufacturer of roofing granules.

Form C-2.4

This figure assumes a high tailwater event for Big Creek, thus producing the highest restriction on discharges out of the North Plant Stormwater Pond. For a lower tailwater event on Big Creek, the Emergency Spillway will be used less frequently.



As per the Missouri State Operating Permit - General Operating Permit #MORA00000 (i.e. Land Disturbance Permit) for Construction or Land Disturbance Activity, the measured effluent limit for settleable solids is not enforceable during or greater than the local 2-year, 24-hour storm event. Under the most conservative "high tailwater" condition, the emergency spillway only discharges during events that exceed the 10-year, 24 hour design storm thus it is not necessary to obtain a NPDES discharge permit for the emergency spillway outfall. For events that do not exceed the 10-year, 24 hour design storm the principle spillway will convey discharges to NPDES Outfall #006 under the conservative "high tailwater" condition.

3.10 BIOLOGICAL TOXICITY TESTING DATA

DO YOU HAVE ANY KNOWLEDGE OR REASON TO BELIEVE THAT ANY BIOLOGICAL TEST FOR ACUTE OR CHRONIC TOXICITY HAS BEEN MADE ON ANY OF YOUR DISCHARGES OR ON RECEIVING WATER IN RELATION TO YOUR DISCHARGE WITHIN THE LAST THREE YEARS?

YES (IDENTIFY THE TEST(S) AND DESCRIBE THEIR PURPOSES BELOW.) NO (GO TO 3.20)

3.20 CONTRACT ANALYSIS INFORMATION

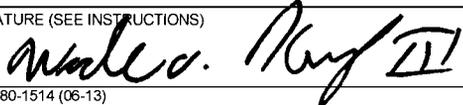
WERE ANY OF THE ANALYSES REPORTED PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

YES (LIST THE NAME, ADDRESS AND TELEPHONE NUMBER OF AND POLLUTANTS ANALYZED BY EACH SUCH LABORATORY OR FIRM BELOW.) NO (GO TO 3.30)

A. NAME	B. ADDRESS	C. TELEPHONE (area code and number)	D. POLLUTANTS ANALYZED (list)

3.30 CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS APPLICATION AND ALL ATTACHMENTS AND THAT, BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

NAME AND OFFICIAL TITLE (TYPE OR PRINT) Wade Kemp - Vice President and General Manager	TELEPHONE NUMBER WITH AREA CODE (301) 393-8866
SIGNATURE (SEE INSTRUCTIONS) 	DATE SIGNED 9/8/15

PLEASE PRINT OR TYPE. You may report some or all of this information on separate sheet (Use the same format) instead of completing these pages.
SEE INSTRUCTIONS

FORM C
TABLE 1 FOR 3.00 ITEM A AND B

INTAKE AND EFFLUENT CHARACTERISTICS	OUTFALL NO. 006
--	--------------------

PART A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT						D. NO. OF ANALYSES	3. UNITS (specify if blank)		4. INTAKE (optional)		
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)			A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
A. Biochemical Oxygen Demand (BOD)		No	Discharge -	To Be	Constructed							
B. Chemical Oxygen Demand (COD)												
C. Total organic Carbon (TOC)												
D. Total Suspended Solids (TSS)												
E. Ammonia (as N)												
F. Flow	VALUE		VALUE		VALUE					VALUE		
G. Temperature (winter)	VALUE		VALUE		VALUE			°C		VALUE		
H. Temperature (summer)	VALUE		VALUE		VALUE			°C		VALUE		
I. pH	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM				STANDARD UNITS				

PART B – Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark column 2A for any pollutant, you must provide the results for at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
CONVENTIONAL AND NONCONVENTIONAL POLLUTANTS														
A. Bromide (24959-67-9)		X												
B. Chlorine, Total Residual		X												
C. Color		X												
D. Fecal Coliform		X												
E. Fluoride (16984-48-8)		X												
F. Nitrate - Nitrate (as N)		X												

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK "X"		3. EFFLUENT						4. UNITS		5. INTAKE <i>(optional)</i>			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE <i>(if available)</i>		C. LONG TERM AVRG. VALUE <i>(if available)</i>		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, AND TOTAL PHENOLS														
1M. Antimony, Total (7440-36-9)		X												
2M. Arsenic, Total (7440-38-2)		X												
3M. Beryllium, Total (7440-41-7)		X												
4M. Cadmium, Total (7440-43-9)		X												
5M. Chromium III (16065-83-1)		X												
6M. Chromium VI (18540-29-9)		X												
7M. Copper, Total (7440-50-8)		X												
8M. Lead, Total (7439-92-1)		X												
9M. Mercury, Total (7439-97-6)		X												
10M. Nickel, Total (7440-02-0)		X												
11M. Selenium, Total (7782-49-2)		X												
12M. Silver, Total (7440-22-4)		X												
13M. Thallium, Total (7440-28-0)		X												
14M. Zinc, Total (7440-66-6)		X												
15M. Cyanide, Amenable to Chlorination		X												
16M. Phenols, Total		X												
RADIOACTIVITY														
(1) Alpha Total		X												
(2) Beta Total		X												
(3) Radium Total		X												
(4) Radium 226 Total		X												

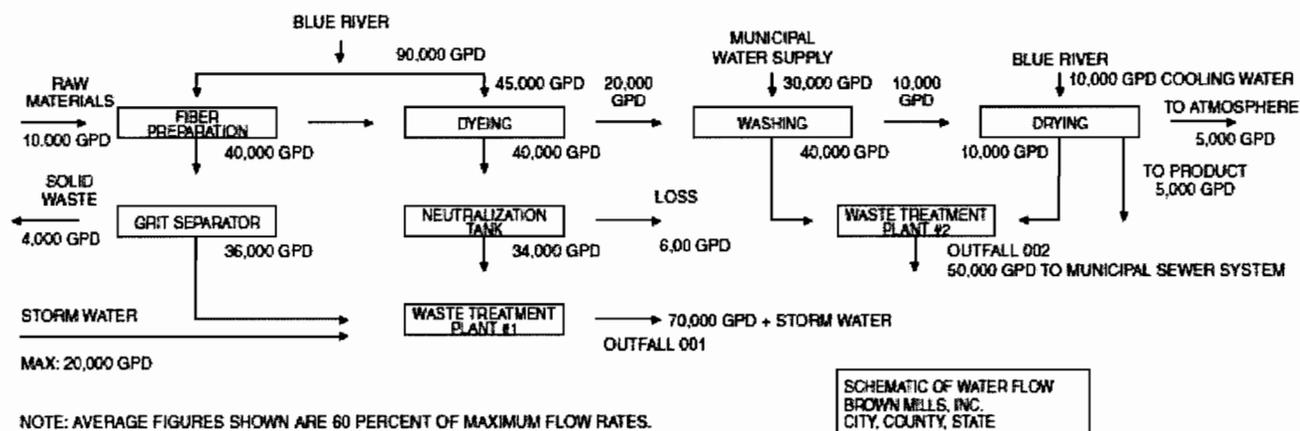
**INSTRUCTIONS FOR FILLING OUT APPLICATION FOR DISCHARGE
PERMIT FORM C – MANUFACTURING, COMMERCIAL,
MINING AND SILVICULTURE OPERATIONS.**

All blanks must be filled in when the application is submitted to the appropriate regional office (see map). The form must be signed as indicated.

This application is to be completed only for wastewater facilities with a discharge. Include any facility with possibility of discharge, even if normally there is no discharge. If this form is not adequate for you to describe your existing operation, then sufficient information should be attached so that an evaluation of the discharge can be made.

- 1.00 Name of Facility – By what title or name is this facility known locally?
- 1.10 and 1.20 Self-explanatory.
- 2.00 List in descending order of significance the four digit Standard Industrial Classification (SIC) codes that best describe your facility in terms of the principal products or services you produce or provide. Also, specify each classification in words.

SIC code numbers are descriptions that may be found in the "Standard Industrial Classification Manual" prepared by the Executive Office of the President, Office of Management and Budget, that is available from the Government Printing Office, Washington, D.C. Use the current edition of the manual. If you have any questions concerning the appropriate SIC code for your facility, contact the Missouri Department of Natural Resources Regional office in your area (see map).
- 2.10 Point of discharge should be given in terms of the legal description of the waste treatment plant, location or sufficient information so that it may be located.
- 2.20 Receiving Water – the name of the stream to which the discharge is directed and any subsequent tributary until a continuous flowing stream is reached.
- 2.30 Self-explanatory.
- 2.40 A. The line drawing should show generally the route taken by water in your facility from intake to discharge. Show all operations contributing wastewater, including process and production areas, sanitary flows, cooling water and storm water runoff. You may group similar operations into a single unit labeled to correspond to the more detailed listing. The water balance should show average and maximum flows. Show all significant losses of water to products, atmosphere, discharge and public sewer systems. You should use actual measurements whenever available; otherwise, use your best estimate. An example of any acceptable line drawing appears below.



B. List all sources of wastewater to each outfall. Operations may be described in general terms (for example, "dye-making reactor" or a distillation tower"). You may estimate the flow contributed by each source if no data is available, and for storm water, you may use any reasonable measure of duration, volume or frequency. For each treatment unit, indicate its size, flow rate and retention time, and describe the ultimate disposal of any solid or liquid wastes not discharged. Treatment units should be listed in order and you should select the proper code from Table A to fill in column 3B for each treatment unit. Insert "XX" into column 3B if no code corresponds to a treatment unit you list.

TABLE A – CODES FOR TREATMENT UNITS

PHYSICAL TREATMENT PROCESSES

1-A	..... Ammonia Stripping	1-M	..... Grit Removal
1-B	..... Dialysis	1-N	..... Microstraining
1-C	..... Diatomaceous Earth Filtration	1-O	..... Mixing
1-D	..... Distillation	1-P	..... Moving Bed Filters
1-E	..... Electrodialysis	1-Q	..... Multimedia Filtration
1-F	..... Evaporation	1-R	..... Rapid Sand Filtration
1-G	..... Flocculation	1-S	..... Reverse Osmosis (Hyperfiltration)
1-H	..... Flotation	1-T	..... Screening
1-I	..... Foam Fractionation	1-U	..... Sedimentation (Settling)
1-J	..... Freezing	1-V	..... Slow Sand Filtration
1-K	..... Gas-Phase Separation	1-W	..... Solvent Extraction
1-L	..... Grinding (Comminutors)	1-X	..... Sorption

CHEMICAL TREATMENT PROCESSES

2-A	..... Carbon Absorption	2-G	..... Disinfection (Ozone)
2-B	..... Chemical Oxidation	2-H	..... Disinfection (Other)
2-C	..... Chemical Precipitation	2-I	..... Electrochemical Treatment
2-D	..... Coagulation	2-J	..... Ion Exchange
2-E	..... Dechlorination	2-K	..... Neutralization
2-F	..... Disinfection (Chlorine)	2-L	..... Reduction

BIOLOGICAL TREATMENT PROCESSES

3-A	..... Activated Sludge	3-E	..... Pre-Aeration
3-B	..... Aerated Lagoons	3-F	..... Spray Irrigation/Land Application
3-C	..... Anaerobic Treatment	3-G	..... Stabilization Ponds
3-D	..... Nitrification-Denitrification	3-H	..... Trickling Filtration

OTHER PROCESSES

4-A	..... Discharge to Surface Water	4-C	..... Reuse/Recycle of Treated Effluent
4-B	..... Ocean Discharge Through Outfall	4-D	..... Underground Injection

SLUDGE TREATMENT AND DISPOSAL PROCESSES

5-A	..... Aerobic Digestion	5-M	..... Heat Drying
5-B	..... Anaerobic Digestion	5-N	..... Heat Treatment
5-C	..... Belt Filtration	5-O	..... Incineration
5-D	..... Centrifugation	5-P	..... Land Application
5-E	..... Chemical Conditioning	5-Q	..... Landfill
5-F	..... Chlorine Treatment	5-R	..... Pressure Filtration
5-G	..... Composting	5-S	..... Pyrolysis
5-H	..... Drying Beds	5-T	..... Sludge Lagoons
5-I	..... Elutriation	5-U	..... Vacuum Filtration
5-J	..... Flotation Thickening	5-V	..... Vibration
5-K	..... Freezing	5-W	..... Web Oxidation
5-L	..... Gravity Thickening		

2.40 C. A discharge is intermittent unless it occurs without interruption during the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes or other similar activities. A discharge is seasonal if it occurs only during certain parts of the year. Fill in every applicable column in this item for each source of intermittent or seasonal discharges. Base your answers on actual data whenever available; otherwise, provide your best estimate. Report the highest daily value for flow rate and total volume in the "Maximum Daily" columns. Report the average of all daily values measures during days when discharge occurred within the last year in the "Long Term Average" columns.

2.50 A. All effluent guidelines promulgated by EPA appear in the Federal Register and are published annually in 40 CFR Subchapter N. A guideline applies to you if you have any operations contributing process wastewater in any subcategory covered by BPT, BCT, or BAT guidelines. If you are unsure whether you are covered by a promulgated effluent guideline, check with your Missouri Department of Natural Resources' Regional Office. You must check yes if an applicable effluent guideline has been promulgated, even if the guideline limitations are being contested in court. If you believe that a promulgated effluent guideline has been remanded for reconsideration by a court and does not apply to your operations, you may check no.

B. An effluent guideline is expressed in terms of production (or other measure of operation) if the limitations are expressed as mass of pollutant per operational parameter; for example, "pounds of BOD per cubic foot of logs from which bark is removed," or "pounds of TSS per megawatt hour of electrical energy consumed by smelting furnace." An example of a guideline not expressed in terms of a measure of operation is one which limits the concentration of pollutants.

C. This item must be completed only if you checked yes to item B. The production information requested here is necessary to apply effluent guidelines to your facility and you may not claim it as confidential. However, you do not have to indicate how the reported information was calculated.

Report quantities in the units of measurement used in the applicable effluent guideline. The figures provided must be a measure of actual operation over a one month period, such as the production for the highest month during the last twelve months, or the monthly average production for the highest year of the last five years, or other reasonable measure of actual operation, but may not be based on design capacity or on predictions of future increases in operation.

2.60 A. If you check yes to this question, complete all parts of the chart, or attach a copy of any previous submission you have made containing the same information.

B. You are not required to submit a description of future pollution control projects if you do not wish to or if none is planned.

3.00 These items require you to collect and report data on the pollutants discharged from each of your outfalls. Each part of this item addresses a different set of pollutants and must be completed in accordance with the specific instructions for that part. The following general instructions apply to the entire item.

GENERAL INSTRUCTIONS. Part A requires you to report at least one analysis for each pollutant. Part B requires you to mark "X" in either the "Believe Present" column or the "Believe Absent" column (column 2A or 2B, Part B) based on your best estimate, and test for those which you believe to be present. Part C requires you to list any of a group of pollutants which you believe to be present, with a brief explanation of why you believe it to be present. (See specific instructions on the form and below Parts A through C).

Base your determination that a pollutant is present in or absent from your discharge on your knowledge of your raw materials, maintenance chemicals, intermediate and final products and byproducts, and any previous analyses known to you of your effluent or of any similar effluent. (For example, if you manufacture pesticides, you should expect those pesticides to be present in contaminated storm water runoff.) If you would expect a pollutant to be present solely as a result of its presence in your intake water, you must mark "Believe Present" but you are not required to analyze for that pollutant. Instead, mark an "X" in the "Intake" column.

REPORTING. All levels must be reported as a concentration and as total mass. You may report some or all of the required data by attaching separate sheets of paper. (Use the following abbreviations in the columns headed "Units" (column 3, Part A, and column 4, Part B).

CONCENTRATION

ppm	.....	parts per million
mg/L	.....	milligrams per liter
ppb	.....	parts per billion
ug/L	.....	micrograms per liter

MASS

lbs	.....	pounds
ton	.....	tons (English tons)
mg	.....	Milligrams
g	.....	grams
kg	.....	kilograms
T	.....	tonnes (metric tons)

If you measure only one daily value, complete only the "Maximum Daily Values" columns and insert "1" into the "number of analyses" columns (columns 2A and 2B, Part A, and columns 3A and 3D, Part B). The Missouri Department of Natural Resources may require you to conduct additional analyses to further characterize your discharges.

For composite samples, the daily value is the total mass or average concentration found in a complete sample taken over the operating hours of the facility during a 24 hour period; for grab samples, the daily value is the arithmetic or flow-weighted total mass or average concentration found in a series of at least four grab samples taken over the operating hours of the facility during a 24 hour period.

If you measure more than one daily value for a pollutant, determine the average of all values within the last year and report the concentration and mass under the "Long Term Average Values" columns (column 2C, Part A, and column 3C, Part B), and the total number of daily values under the "Number of Analyses" columns (column 2D, Part A, and column 3D, Part B). Also, determine the average of all daily values taken during each calendar month, and report the highest average of all daily values taken during each calendar month, and report the highest average under the "Maximum 30 Day Values" columns (column 2B, Part A, and column 3B, Part B).

SAMPLING. The collection of the samples for the reported analyses should be supervised by a person experienced in performing sampling of industrial wastewater. You may contact your Missouri Department of Natural Resources' Regional Office for detailed guidance on sampling techniques and for answers to specific questions. Any specific requirements contained in the applicable analytical methods should be followed for sample containers, sample preservation, holding times, the collection of duplicate samples, etc. The time when you sample should be representative of your normal operation, to the extent feasible, with all processes which contribute wastewater in normal operation and with your treatment system operating properly with no system upsets. Samples should be collected from the center of the flow channel, where turbulence is at a maximum, at a site specified in your present permit or at any site adequate for the collection of a representative sample.

Grab and composite samples are defined as follows:

GRAB SAMPLE. An individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.

COMPOSITE SAMPLE. A combination of at least eight sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24 hour period. For volatile pollutants, aliquots must be combined in the laboratory immediately before analysis. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.

ANALYSIS. You must use test methods promulgated in 40 CFR Part 136; however, if none has been promulgated for a particular pollutant, you may use any suitable method for measuring the level of the pollutant in your discharge provided that you submit a description of the method or a reference to a published method. Your description should include the sample holding times, preservation techniques and the quality control measures which you used.

If you have two or more substantially identical outfalls, you may request permission from the Missouri Department of Natural Resources to sample and analyze only one outfall and submit the results of the analysis for other substantially identical outfalls. If your request is granted by the Missouri Department of Natural Resources, on a separate sheet attached to the application form, identify which outfall you did test and describe why the outfalls which you did not test are substantially identical to the outfall which you did test.

REPORTING OF INTAKE DATA. You are not required to report data under the "Intake" columns unless you wish to demonstrate your eligibility for a "net" effluent limitation for one or more pollutants, that is, an effluent limitation adjusted by subtracting the average level of the pollutant(s) present in your intake water. National Pollutant Discharge Elimination System (NPDES) regulations allow net limitations only in certain circumstances. To demonstrate your eligibility, under the Intake columns report the average of the results of analyses on your intake water (if your water is treated before use, test the water after it is treated), and attach a separate sheet containing the following for each pollutant:

1. A statement that the intake water is drawn from the body of water into which the discharge is made. (Otherwise, you are not eligible for net limitations.)
2. A statement of the extent to which the level of the pollutant is reduced by treatment of your wastewater. (Your limitations will be adjusted only to the extent that the pollutant is not removed.)
3. When applicable, a demonstration of the extent to which the pollutants in the intake vary physically, chemically, or biologically from the pollutants contained in your discharge. For example, when the pollutant represents a class of compounds. Your limitations will be adjusted only to the extent that the intake pollutants do not vary from the discharged pollutants.

- 3.00 Part A must be completed by all applicants for all outfalls, including outfalls containing only noncontact cooling water or storm runoff. However, at your request, the Missouri Department of Natural Resources may waive the requirements to test for one or more of these pollutants, upon a determination that testing for the pollutant(s) is not appropriate for your effluent.

Use composite samples for all pollutants in this part, except use grab samples for pH and temperature. See discussion in instructions above for definitions of the columns in Part A. The "Long Term Average Values" column (column 2C) and "Maximum 30 Day Values" column (column 2B) are not compulsory but should be filled out if data is available.

- 3.00 Part B must be completed by all applicants for all outfalls, including outfalls containing only noncontact cooling water or storm runoff.

Use composite samples for all pollutants you analyze for in this part, except use grab samples for residual chlorine, oil and grease and fecal coliform. The Long Term Average Values column (column 3C) and Maximum 30 Day Values column (column 3B) are not compulsory but should be filled out if data is available.

- 3.00 List any pollutants in Table B that you believe to be present and explain why you believe them to be present in part C. No analysis is required, but you have analytical, you must report it.

TABLE B – TOXIC POLLUTANTS AND HAZARDOUS SUBSTANCES REQUIRED TO BE IDENTIFIED BY APPLICANTS IF EXPECTED TO BE PRESENT

TOXIC POLLUTANT	HAZARDOUS SUBSTANCES	HAZARDOUS SUBSTANCES
Asbestos	Dichlorvos	Nalad
	Diethylamine	Napthenic acid
HAZARDOUS SUBSTANCES	Dimethylamine	Nitrotoluene
	Dintrobenzene	Parathion
Acetaldehyde	Diquat	Phenolsulfonate
Allyl alcohol	Disulfoton	Phosgene
Allyl chloride	Diuron	Propargite
Amyl acetate	Epichlorohydrin	Propylene oxide
Aniline	Ethion	Pyrethrins
Benzonitrile	Ethylene diamine	Quinoline
Benzyl chloride	Ethylene dibromide	Resorcinol
Butyl acetate	Formaldehyde	Strontium
Butylamine	Furfural	Strychnine
Captan	Guthion	Sytrene

TABLE B – (continued)

HAZARDOUS SUBSTANCES	HAZARDOUS SUBSTANCES	HAZARDOUS SUBSTANCES
Carbaryl	Isoprene	2, 4, 5-T (2,4,5-Trichloro- phenoxyacetic acid)
Carbofuran	Isopropanolamine	TDE (Tetrachlorodiphenyl ethane)
Carbon disulfide	Kelthane	2, 4, 5-TP (2-(2,4,5-Trichloro- phenoxy) propanoic acid)
Chlorpyrifos	Kepone	Trichlorofon
Coumaphos	Malathion	Triethanolamine
Cresol	Mercaptodimethur	Triethylamine
Crotonaldehyde	Methoxychlor	Uranium
2,4-D (2,4-Dichloro- Phenoxyacetic acid)	Methyl mercaptan	Vanadium
Diazinon	Methyl parathion	Vinyl acetate
Dicamba	Mevinphos	Xylene
Dichlobenil	Mexacarbate	Xylenol
2,2-Dichloropropionic acid	Monethyl amine	Zirconium
	Monomethyl amine	

3.10 Self-explanatory. Additional information may be requested by the Missouri Department of Natural Resources.

3.20 Self-explanatory.

3.30 The Clean Water Act provides for severe penalties for submitting false information on this application form.

Section 309(c)(2) of the Clean Water Act provides that "Any person who knowingly makes any false statement, representation, or certification in any application . . . shall upon conviction, be punished by a fine of no more \$10,000 or by imprisonment for not more than six months, or both.

All applications must be signed as follows and the signature must be original.

- A. For a corporation, by an officer having responsibility for the overall operation of the regulated facility or activity or for environmental matters.
- B. For a partnership or sole proprietorship, by a general partner or the proprietor.
- C. For a municipal, state, federal or other public facility, by either a principal executive officer or by an individual having overall responsibility for environmental matters at the facility.